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**Forest Pest
Management**

Davis, CA.

Data Report of Wind Tunnel Tests Characterization of Selected Tank Mixes and Nozzles for Drops Less Than 34 Micron Diameter

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FPM 87-5
June 1987

DATA REPORT OF WIND TUNNEL TESTS -

CHARACTERIZATION OF SELECTED TANK MIXES AND NOZZLES FOR DROPS LESS THAN 34 MICRON DIAMETER

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PREFACE

The purpose of these wind tunnel tests was to establish the drop spectrum of atomized drops less than 34 micrometers in diameter of selected tank mixes and nozzles. Droplet spectrum data are used to assist in the selection of nozzle types and other parameters for pesticide applications. Such data also are used as input to mathematical models which predict spray coverage, canopy penetration, and off-traget drift. Funding was provided by USDA Forest Service, Forest Pest Management, Washington Office. Questions and comments should be directed to the Project Officer, John W. Barry, 2121C, Second Street, Davis, CA 95616, (916)758-4600.

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INTRODUCTION

A series of tests were conducted in the Department of Agricultural Engineering UCD wind tunnel to measure the less than 34 micrometer drop size spectrum of selected nozzles and tank mixes. D10, D10-45, and RD10 (D10-45) nozzles were evaluated with water for particles less than 34 μm using an FSSP-100 forward scattering spectrometer probe. Particles greater than 30 μm were measured using a PMS OAP-2D-GA1 imaging probe. Secondly tests were conducted with an 8006 Flat Fan and a D8-46 hollow cone nozzle with 0, 3, 6, 9, and 12 oz. of Nalco-Trol per 100 gallons water for measurement of particle sizes less than 34 μm. Thirdly the D10, D10-45, and RD10 (D10-45) nozzles were tested using tank mixes simulating Esteron 99, Velpar, and Atrozine for measurement of particles less than 34 μm and greater than 30 μm with the above-mentioned probes.

EQUIPMENT

The tests were conducted in a wind tunnel with a test section 8 feet long and a 2 x 2 foot cross section. Two different probes were used in this study. A forward scattering droplet spectrometer (FSSP-100) was used for measuring particle diameters less than 34 μm. Particles are sized by measuring the amount of light scattered into the collecting optics by particles interacting through a focused laser beam. The system used in these tests was set up to measure particles from 2.6 μm to 34.4 μm. The second probe was an OAP-2D-GA1 imaging probe. The system counts and classifies the drops into 62 size classes from 30 to 2062 μm.

PROCEDURES

Three series of tests were conducted for this report. The first of the series tested two nozzles, an 8006 flat fan directed 135 degrees relative to the airstream at 120 mph, and a D8-46 hollow cone nozzle directed at 0 degrees relative to the airstream at 50 mph. Both nozzles were tested at 40 psi using 0, 3, 6, 9, and 12 oz. of Nalco-Trol per 100 gallons of water. The percent volume of spray less than 34 μm was measured using the FSSP-100 forward scattering probe. An earlier series of tests were reported to the Forest Service on these same nozzles and mixtures for particles greater than 30 μm.

The second of the series measured the spectrum for particle sizes less than 34 μm and greater than 30 μm for RD10 (D10-45), D10-45, and D10 jet nozzles at 50 mph, 30 psi and 0 degrees relative to the airstream using tank mixes of 5% Esteron 99C and 95% water, 10% Velpar and 90% water, and 10% AAtrex 4L and 90% water. The last of the series tested the same nozzles as above under the same conditions but with water only.

Tests using the 2D imaging probe were run with the PMS software version 126 with an AVG set at 100. This version counts all particles passing through the laser beam and provides an average weighting factor based upon the number of particles set in AVG. The slice rate was set at 1.5 MHz for tests run at 50 mph. The horizontal distance from the spray nozzle to the laser probe was adjusted to obtain an optimum sample density and ranged from 12 to 78 inches. The test nozzle was mounted on an x-y scanning mechanism controlled by a microprocessor. The microprocessor was programmed to move the nozzle through

a series of vertical and horizontal increments such that the entire spray pattern from the nozzle was passed through the laser beam. The length of scan varied from 13.8 to 15.7 inches, the width of scan varied from 0.65 to 2.4 inches and the total number of scans varied from 6 to 12. Each test was duplicated at least two times.

The tests using the FSSP-100 forward scattering probe were done in the same manner as above but using PMS version 123 software.

The nomenclature used is as follows:

D_{30} = volume mean diameter

$D_{V.1}$ = Diameter that contains 10% of volume in drops of smaller size.

$D_{V.5}$ = Diameter that contains 50% of volume in drops of smaller size. Also defined as volume median diameter

$D_{V.9}$ = Diameter that contains 90% of volume in drops of smaller size.

$D_{V.9} - D_{V.1}$ = Range. This represents the range in drop size that contains 80% of the spray volume.

$\frac{D_{V.9} - D_{V.1}}{D_{V.5}}$ = Relative Span. This is an index that indicates the relative uniformity of drop spectra. The number represents a normalized value of the Range ($D_{V.9} - D_{V.1}$) as a fraction of the volume median diameter. Thus, a smaller number indicates a smaller relative range and a more uniform drop spectra.

RESULTS

Table I shows airspeed, nozzle angle, pressure and flow rate for an 8006 flat fan and D8-46 hollow cone nozzle with increasing concentrations of Nalco-Trol. The 12 oz/100 gal mix was not run for the D8-46 nozzle because the nozzle would not function properly at this concentration.

Table II shows the percent volume less than 34 μm for these nozzles as measured by the FSSP-100 forward scattering probe. The 8006 flat fan nozzle when run at 135° relative to the airstream and 120 mph airspeed shows a very small reduction in the number of fine particles produced as a result of increasing the concentration of Nalco-Trol, whereas the D8-46 hollow cone nozzle directed with the airstream at 50 mph shows a marked decrease in fine particles as the concentration of Nalco-Trol is increased.

Table III shows the test conditions for an RD10 Raindrop nozzle with a D10-45 core, a D10-45 hollow cone nozzle, and a D10 jet nozzle with three different tank mixes, Esteron 99C, Velpar, and AAtrex 4L.

Table IV shows the drop size spectrum for these nozzles and mixes from the 2D imaging probe.

Table V shows the percent volume less than 34 μm for these same nozzles

and tank mixes using the FSSP-100 forward scattering probe.

Table VI shows the physical properties of the simulated formulations of Esteron 99C, Velpar, and AAtrex 4L as used in these tests. The simulated formulations were supplied by Dow, Dupont, and Ciba-Geigy, the manufacturers' of the respective herbicide formulations.

Tables VII and VIII show the drop size spectrum and volume less than 34 μm using the RD10 Raindrop nozzle with a D10-45 core, the D10-45 nozzle and D10 jet nozzle with water.

Table IX shows a comparison of volume median diameters and percentages less than 34 μm for RD10 (D10-45) Raindrop nozzle, D10-45 hollow cone nozzle and D10 jet nozzle with 5% Esteron mix, 10% Velpar mix, 10% AAtrex 4L mix, and water.

The Appendix provides atomization data for each nozzle and set of parameters to include drop size frequency data, statistical results and graphs for each test in the series.

Table I

Nozzle types and test conditions for drop size measurements using Nalco-Trol

Nozzle type	Airspeed mph	Nozzle angle relative to airstream	Pressure psi	Flow rate gpm	Oz of Nalco-Trol per 100 gal water
8006	120	135°	40	0.61	0
	120	135°	40	0.63	3
	120	135°	40	0.63	6
	120	135°	40	0.63	9
	120	135°	40	0.63	12
D8-46	50	0°	40	1.84	0
	50	0°	40	1.38	3
	50	0°	40	1.38	6
	50	0°	40	1.38	9

Table II

Summary of percent of volume < 34 μm for Nalco-Trol tests

Nozzle type	Oz of Nalco-Trol per 100 gal water	Flow rate mg/s	Volume < 34 μm mg/s	% volume < 34 μm
8006	0	38,481	3359	8.7
	3	39,743	3420	8.6
	6	39,743	3406	8.6
	9	39,743	3235	8.1
	12	39,743	3140	7.9
D8-46	0	116,073	1094	0.94
	3	87,055	458	0.53
	6	87,055	248	0.28
	9	87,055	91	0.10

Table III

Nozzle types, flow rate and simulated herbicide formulations used in drop spectrum tests. All tests at 50 mph, 30 psi, and nozzle angle 0° relative to the airstream

Nozzle Type	Flow rate gpm	Mixture
RD10 (D10-45)	0.94	5% Esteron 99C, 95% water
D10-45	0.94	5% Esteron 99C, 95% water
D10 jet	2.35	5% Esteron 99C, 95% water
RD10 (D10-45)	0.94	10% Velpar, 90% water
D10-45	0.94	10% Velpar, 90% water
D10 jet	2.35	10% Velpar, 90% water
RD10 (D10-45)	0.94	10% AAtrex 4L, 90% water
D10-45	0.94	10% AAtrex 4L, 90% water
D10 jet	2.35	10% AAtrex 4L, 90% water

Table IV

Summary of drop size spectrum from nozzles and conditions listed in Table III

Nozzle type	Mixture	Drop size, μm			
		$D_{V.1}$	$D_{V.5}$	$D_{V.9}$	R.S.
RD10 (D10-45)	5% Esteron 99C, 95% water	479	1076	1510	0.96
D10-45	5% Esteron 99C, 95% water	254	464	686	0.93
D10 jet	5% Esteron 99C, 95% water	674	1337	1936	0.94
RD10 (D10-45)	10% Velpar, 90% water	411	1041	1503	1.05
D10-45	10% Velpar, 90% water	165	378	633	1.24
D10 jet	10% Velpar, 90% water	588	1252	1822	0.99
RD10 (D10-45)	10% AAtrex 4L, 90% water	525	1186	1643	0.94
D10-45	10% AAtrex 4L, 90% water	215	459	682	1.02
D10 jet	10% AAtrex 4L, 90% water	661	1312	1797	0.87

Table V

Summary of percent of volume < 34 μm from nozzles in Table IV

Nozzle type	Mixture	Flow rate mg/s	Volume < 34 μm mg/s	% volume < 34 μm
RD10 (D10-45)	5% Esteron 99C, 10% water	59,298	92	0.16
D10-45	5% Esteron 99C, 10% water	59,298	691	1.17
D10 jet	5% Esteron 99C, 10% water	148,246	622	0.42
RD10 (D10-45)	10% Velpar, 90% water	59,298	213	0.36
D10-45	10% Velpar, 90% water	59,298	1206	2.03
D10 jet	10% Velpar, 90% water	148,246	918	0.62
RD10 (D10-45)	10% AAtrex 4L, 90% water	59,298	180	0.30
D10-45	10% AAtrex 4L, 90% water	59,298	845	1.43
D10 jet	10% AAtrex 4L, 90 water	148,246	508	0.34

Table VI

Physical properties of simulated herbicide tank mixes

Mixture	Surface tension dynes/cm	Viscosity cps	Density gm/cm^3
5% Esteron 99C, 95% water	30.0	1.07	0.998
10% Velpar, 90% water	35.6	1.21	0.992
10% AAtrex 4L, 90% water	32.3	2.31	1.035

Table VII

Summary of drop size with water at 50 mph, 30 psi, and nozzle angle 0° relative to the airstream

Nozzle type	Flow rate gpm	Drop size in μm $D_{V.1}$	$D_{V.5}$	$D_{V.9}$	R.S.
RD10 (D10-45)	0.94	507	1144	1776	1.11
D10-45	0.94	212	438	682	1.07
D10 jet	2.35	620	1152	1527	0.79

Table VIII

Summary of percent of volume < 34 μm from nozzles in Table VII

Nozzle type	Flow rate mg/s	Volume < 34 μm mg/s	% volume < 34 μm
RD10 (D10-45)	59,298	168	0.28
D10-45	59,298	772	1.30
D10 jet	148,246	334	0.23

Table IX

Comparison of volume median diameter, % volume < 34 μm and % volume 30 to 154 μm for selected nozzles and tank mixes

Nozzle type	Mixture	$D_{V.5}$	% Volume < 34 μm	% Volume 30-154 μm
RD10 (D10-45)	5% Esteron 99C, 95% water	1076	0.16	0.48
	10% Velpar, 90% water	1041	0.36	1.13
	10% AAtrex 4L, 90% water	1186	0.31	0.44
	water	1144	0.28	0.51
D10-45	5% Esteron 99C, 95% water	464	1.17	4.09
	10% Velpar, 90% water	378	2.03	8.64
	10% AAtrex 4L, 90% water	459	1.45	4.92
	water	438	1.30	4.99
D10 jet	5% Esteron 99C, 95% water	1337	0.42	0.60
	10% Velpar, 90% water	1252	0.69	0.58
	10% AAtrex, 90% water	1312	0.39	0.69
	water	1152	0.23	0.68

APPENDIX

Nozzle	8006	Distance to Probe	61 cm.
Angle to Airstream	135 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	120 mph	Number of Scans	8
Flow Rate	.6 gpm	Scan Spacing	6.8 cm.
Tank Mix	WATER	Scan Length	40 cm.

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Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED %_N	ACCUMULATED %_VOL.
2.6						
4.8	2.92E+08	9.80	10.96	0.13	24.10	0.29
6.9	1.57E+08	18.08	6.18	0.26	37.09	0.83
11.0	1.29E+08	56.07	2.60	0.41	47.74	2.50
13.2	8.08E+07	76.75	3.03	1.04	54.40	4.78
15.4	1.52E+08	236.07	5.68	3.19	66.91	11.81
20.5	1.70E+08	544.33	2.74	3.18	80.90	28.02
23.6	6.23E+07	354.48	1.66	3.40	86.04	38.57
25.7	4.64E+07	365.18	1.82	5.18	89.86	49.44
27.6	3.61E+07	358.25	1.56	5.61	92.83	60.11
29.5	2.80E+07	341.90	1.22	5.36	95.14	70.29
31.5	2.82E+07	419.46	1.16	6.24	97.47	82.78
34.4	3.07E+07	578.44	0.87	5.94	100.00	100.00
TOTAL	1.21E+09	3358.81				

NUMBER MEAN DIA.= D_{10}.... 13.00 µm
VOLUME MEAN DIA.= D_{30}.... 17.43 µm
SAUTER MEAN DIA.= D_{32}.... 22.20 µm

NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 11.75 µm
$D_{N.9}$... 25.79 µm

VOLUME MEDIAN DIA.= $D_{V.1}$... 14.83 µm
$D_{V.5}$... 25.80 µm
$D_{V.9}$... 32.72 µm

RELATIVE SPAN= 0.69

Nozzle Type . . . 8006
Angle to Airstream 135 °
Spray Pressure . . 40 psi
Airspeed . . . . . 120 mph
Flow Rate . . . . .6 gpm
Tank Mix: WATER

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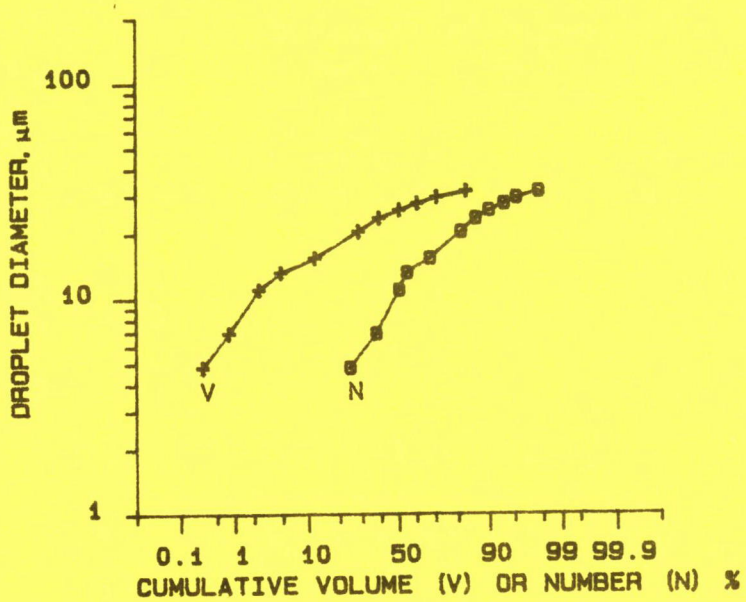

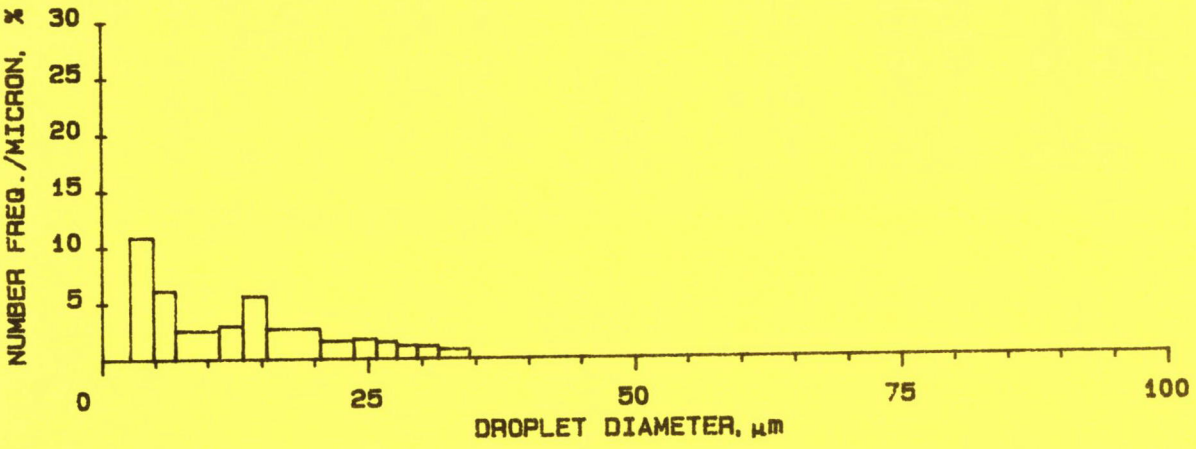

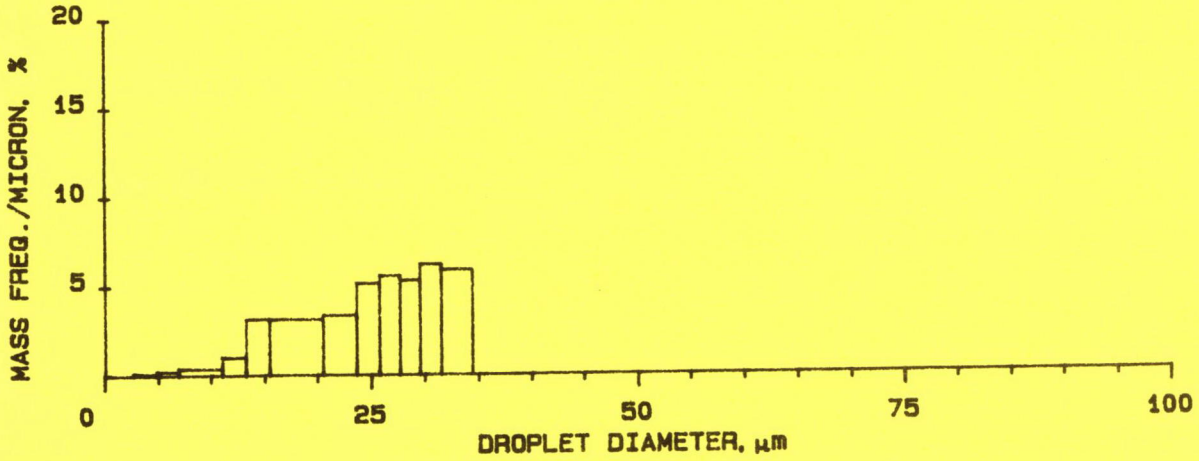

Nozzle	8006	Distance to Probe	61 cm.
Angle to Airstream	135 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	120 mph	Number of Scans	8
Flow Rate	.6 gpm	Scan Spacing	6.8 cm.
Tank Mix	3 OZ NALCO/100 GAL	Scan Length	40 cm.

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Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/µm	%VOL/µm	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.37E+08	7.95	9.89	0.11	21.76	0.23
6.9	1.28E+08	14.70	5.59	0.20	33.50	0.66
11.0	1.06E+08	46.15	2.38	0.33	43.25	2.01
13.2	6.81E+07	64.65	2.84	0.86	49.49	3.90
15.4	1.42E+08	220.33	5.90	2.93	62.47	10.34
20.5	1.68E+08	538.59	3.02	3.09	77.87	26.09
23.6	6.49E+07	369.18	1.92	3.48	83.82	36.89
25.7	4.93E+07	388.30	2.15	5.41	88.34	48.24
27.6	3.72E+07	369.83	1.80	5.69	91.75	59.05
29.5	2.71E+07	330.36	1.31	5.08	94.23	68.71
31.5	2.88E+07	428.41	1.32	6.26	96.87	81.24
34.4	3.41E+07	641.61	1.08	6.47	100.00	100.00
TOTAL	1.09E+09	3420.07				

NUMBER MEAN DIA.= D_{10}... 13.83 µm
VOLUME MEAN DIA.= D_{30}... 18.17 µm
SAUTER MEAN DIA.= D_{32}... 22.70 µm

NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 13.29 µm
$D_{N.9}$... 26.62 µm

VOLUME MEDIAN DIA.= $D_{V.1}$... 15.28 µm
$D_{V.5}$... 26.01 µm
$D_{V.9}$... 32.85 µm

RELATIVE SPAN= 0.68

Nozzle Type . . . 8006
Angle to Airstream 135 °
Spray Pressure . . 40 psi
Airspeed . . . . . 120 mph
Flow Rate . . . . .6 gpm
Tank Mix: 3 OZ NALCO/100 GAL

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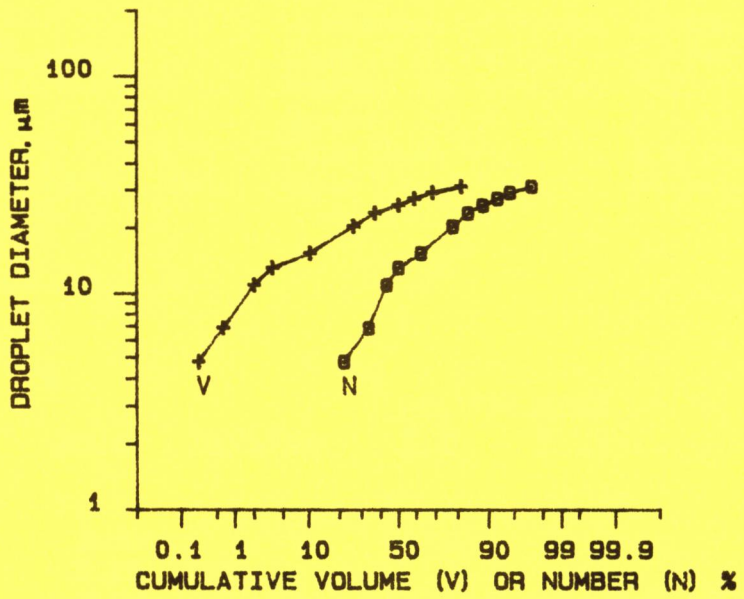

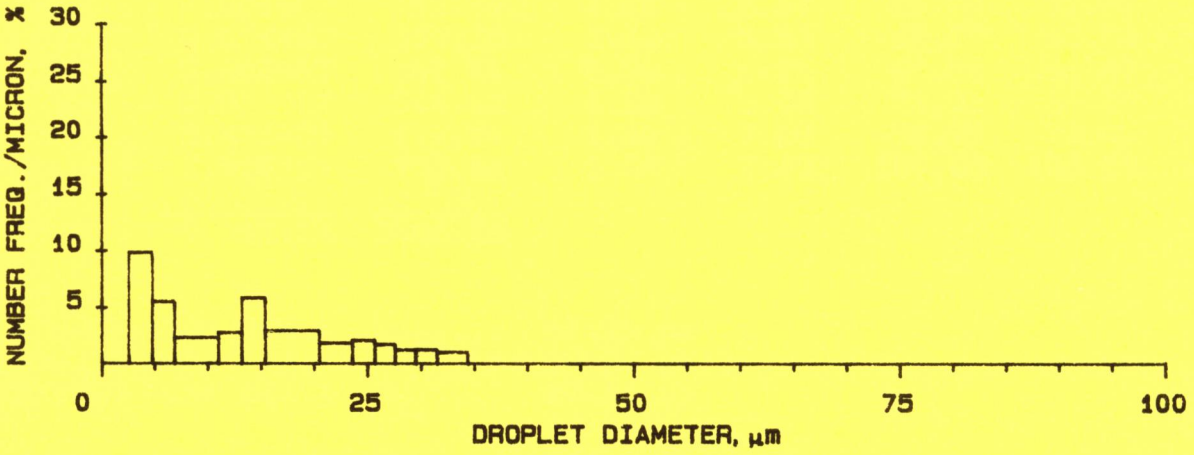

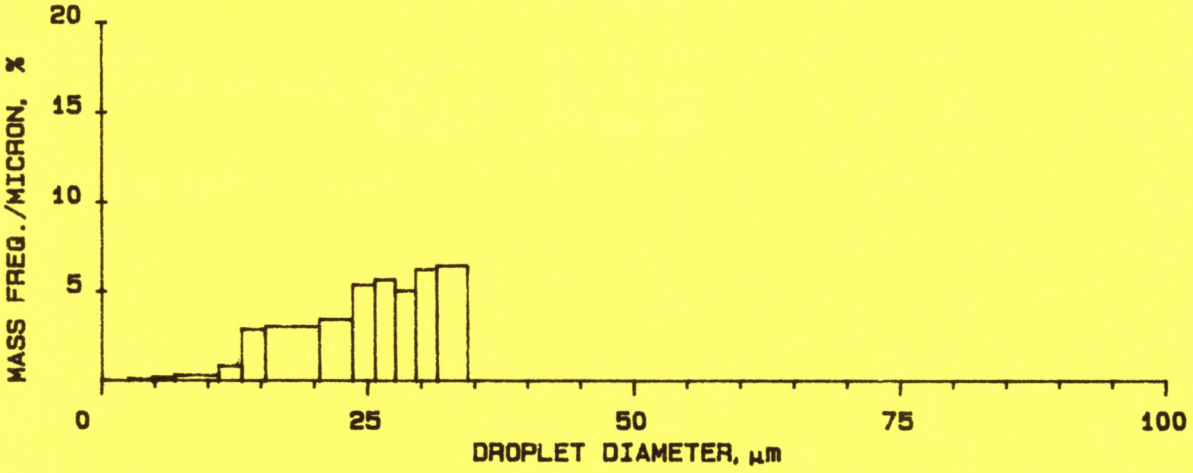

Nozzle	8006	Distance to Probe	61 cm.
Angle to Airstream	135 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	120 mph	Number of Scans	8
Flow Rate	.6 gpm	Scan Spacing	6.8 cm.
Tank Mix	6 OZ NALCO/100 GAL	Scan Length	40 cm.

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Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.21E+08	7.42	10.31	0.10	22.67	0.22
6.9	1.17E+08	13.40	5.69	0.19	34.63	0.61
11.0	8.99E+07	39.01	2.25	0.28	43.84	1.76
13.2	5.49E+07	52.10	2.56	0.70	49.46	3.29
15.4	1.06E+08	165.37	4.95	2.21	60.34	8.14
20.5	1.37E+08	438.87	2.75	2.53	74.36	21.02
23.6	6.20E+07	352.56	2.05	3.34	80.70	31.37
25.7	5.05E+07	397.35	2.46	5.55	85.87	43.04
27.6	3.85E+07	382.54	2.08	5.91	89.82	54.27
29.5	2.82E+07	344.82	1.52	5.33	92.71	64.39
31.5	3.21E+07	477.24	1.64	7.00	95.99	78.40
34.4	3.91E+07	735.81	1.38	7.45	100.00	100.00
TOTAL	9.76E+08	3406.50				

NUMBER MEAN DIA.= D_{10}.... 14.20 µm
VOLUME MEAN DIA.= D_{30}.... 18.83 µm
SAUTER MEAN DIA.= D_{32}.... 23.61 µm

NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 13.31 µm
$D_{N.9}$... 27.72 µm

VOLUME MEDIAN DIA.= $D_{V.1}$... 16.14 µm
$D_{V.5}$... 26.88 µm
$D_{V.9}$... 33.06 µm

RELATIVE SPAN= 0.63

Nozzle Type . . . 8006
Angle to Airstream 135 °
Spray Pressure . . 40 psi
Airspeed . . . . . 120 mph
Flow Rate . . . . .6 gpm
Tank Mix: 6 OZ NALCO/100 GAL

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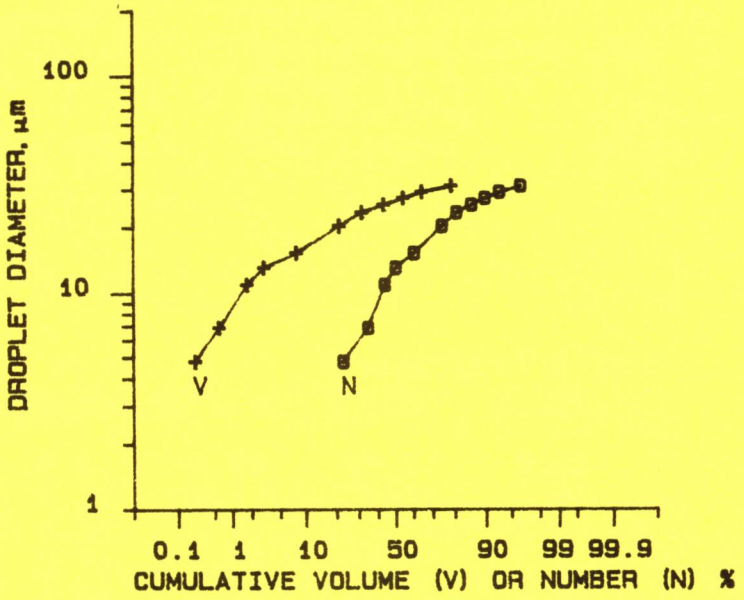
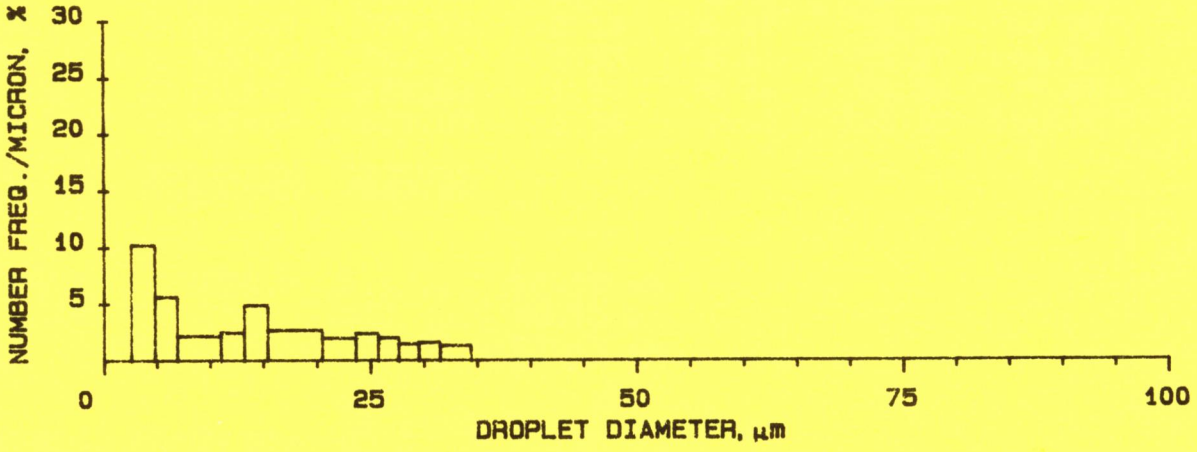
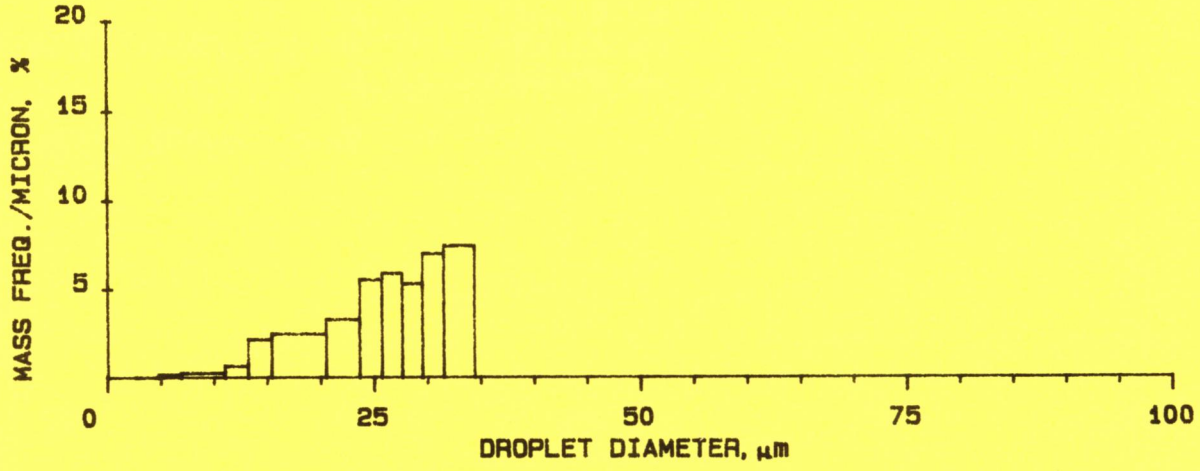






Nozzle	8006	Distance to Probe	61 cm.
Angle to Airstream	135 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	120 mph	Number of Scans	8
Flow Rate	.6 gpm	Scan Spacing	6.8 cm.
Tank Mix	9 OZ NALCO/100 GAL	Scan Length	40 cm.

FILE: C:\PMS\DATA\06058609.003

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.13E+08	7.15	10.26	0.10	22.57	0.22
6.9	1.15E+08	13.19	5.78	0.19	34.71	0.63
11.0	8.98E+07	38.98	2.32	0.29	44.21	1.83
13.2	5.73E+07	54.44	2.76	0.76	50.28	3.52
15.4	1.02E+08	158.03	4.88	2.22	61.02	8.40
20.5	1.26E+08	405.46	2.62	2.46	74.38	20.93
23.6	6.19E+07	351.98	2.11	3.51	80.93	31.81
25.7	5.04E+07	396.96	2.54	5.84	86.26	44.08
27.6	3.82E+07	379.73	2.13	6.18	90.30	55.82
29.5	2.74E+07	334.67	1.53	5.44	93.20	66.16
31.5	2.93E+07	435.86	1.55	6.74	96.30	79.63
34.4	3.50E+07	659.07	1.28	7.02	100.00	100.00
TOTAL	9.45E+08	3235.50				

NUMBER MEAN DIA.= D_{10} .... 14.10 µm
VOLUME MEAN DIA.= D_{30} .... 18.70 µm
SAUTER MEAN DIA.= D_{32} .... 23.47 µm

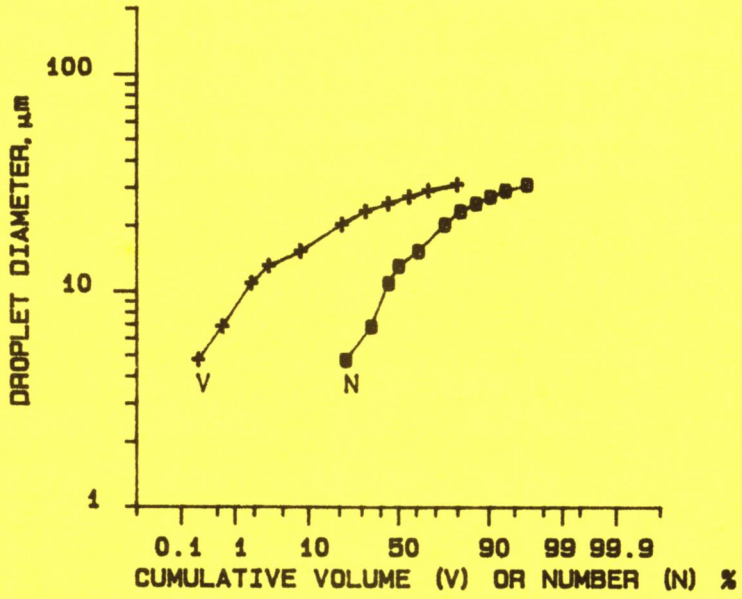
NUMBER MEDIAN DIA.= $D_{N.1}$ ... < 4.8 µm
$D_{N.5}$ ... 13.10 µm
$D_{N.9}$ ... 27.46 µm

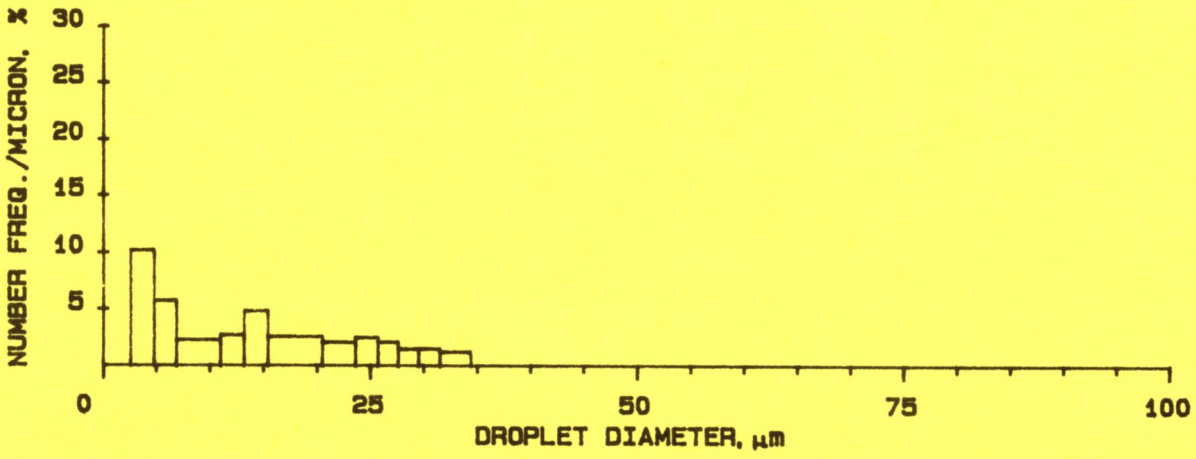
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 16.05 µm
$D_{V.5}$ ... 26.66 µm
$D_{V.9}$ ... 32.98 µm

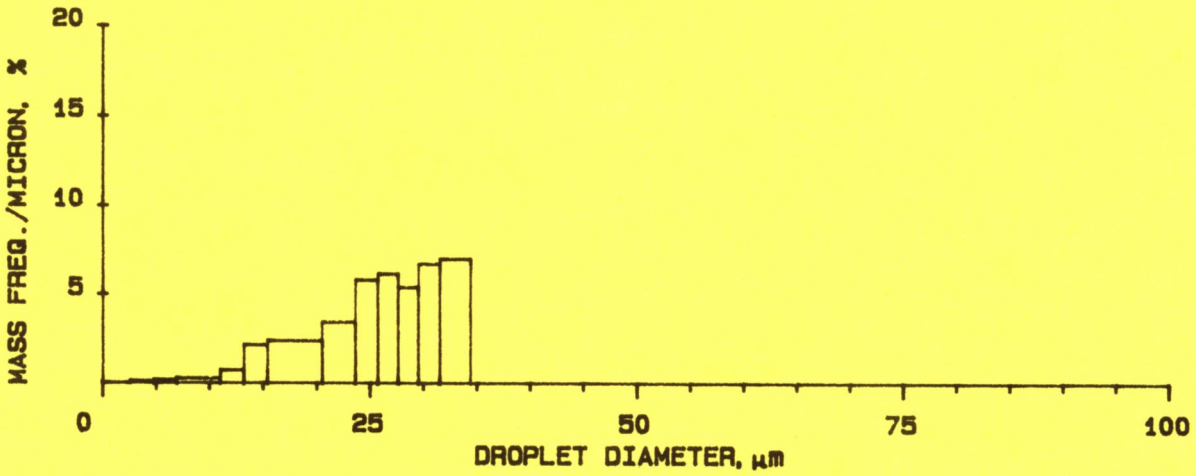
RELATIVE SPAN= 0.63

Nozzle Type . . . 8006
Angle to Airstream 135 °
Spray Pressure . . 40 psi
Airspeed . . . . . 120 mph
Flow Rate . . . . .6 gpm
Tank Mix: 9 OZ NALCO/100 GAL

FILE: C:\PMS\DATA\06058609.003







Nozzle	8006	Distance to Probe	61 cm.
Angle to Airstream	135 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	120 mph	Number of Scans	8
Flow Rate	.6 gpm	Scan Spacing	6.8 cm.
Tank Mix	12 OZ NALCO/100 GAL	Scan Length	40 cm.

FILE: C:\PMS\DATA\06058610.004

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.20E+08	7.37	10.74	0.11	23.62	0.23
6.9	1.11E+08	12.80	5.70	0.19	35.60	0.64
11.0	8.87E+07	38.50	2.32	0.30	45.13	1.87
13.2	5.70E+07	54.09	2.78	0.78	51.25	3.59
15.4	9.94E+07	154.69	4.85	2.24	61.92	8.52
20.5	1.21E+08	387.37	2.54	2.42	74.89	20.85
23.6	5.97E+07	339.79	2.07	3.49	81.31	31.67
25.7	4.76E+07	374.65	2.43	5.68	86.42	43.61
27.6	3.64E+07	361.87	2.06	6.07	90.33	55.13
29.5	2.62E+07	320.38	1.48	5.37	93.15	65.33
31.5	2.84E+07	423.42	1.53	6.74	96.20	78.82
34.4	3.53E+07	665.17	1.31	7.30	100.00	100.00
TOTAL	9.31E+08	3140.11				

NUMBER MEAN DIA.= D_{10}... 13.94 µm
VOLUME MEAN DIA.= D_{30}... 18.61 µm
SAUTER MEAN DIA.= D_{32}... 23.49 µm

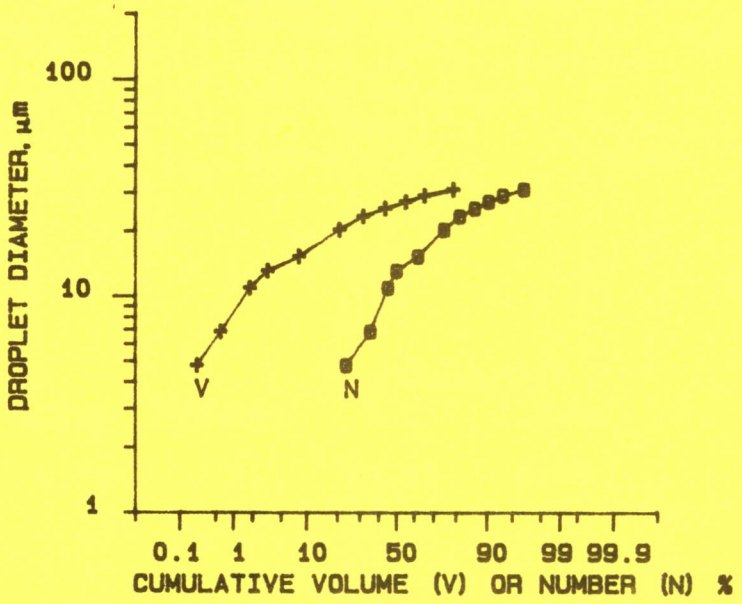
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 12.75 µm
$D_{N.9}$... 27.44 µm

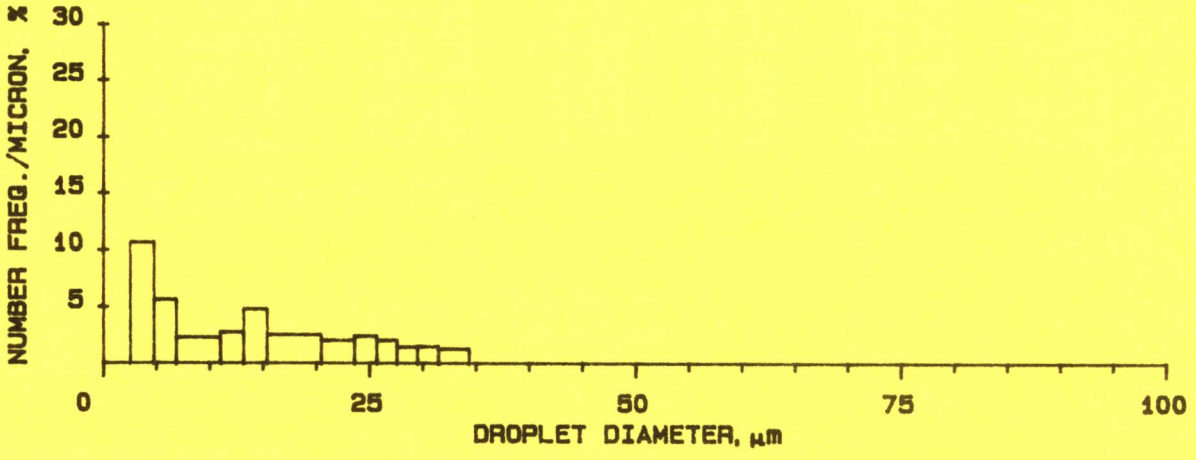
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.01 µm
$D_{V.5}$... 26.75 µm
$D_{V.9}$... 33.03 µm

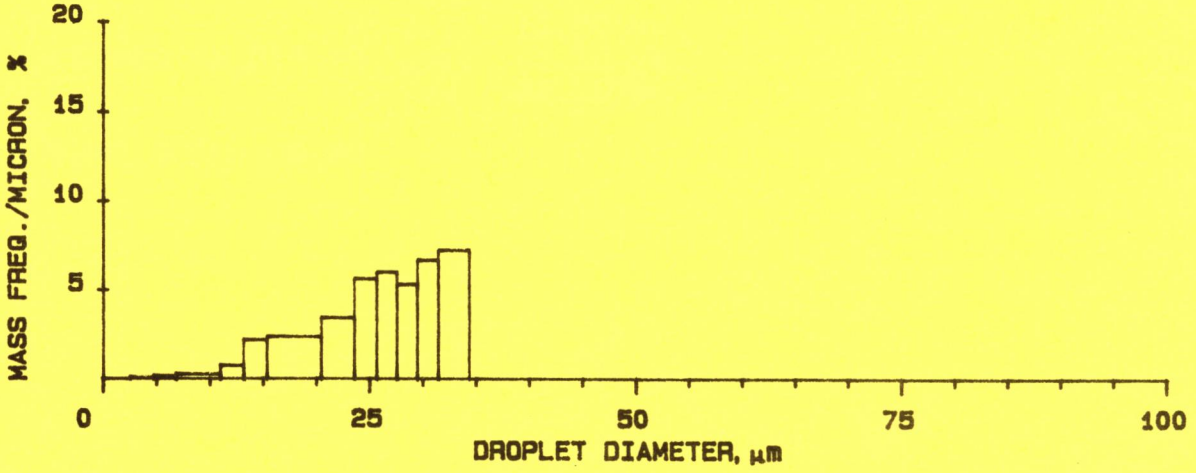
RELATIVE SPAN= 0.64

Nozzle Type . . . 8006
Angle to Airstream 135 °
Spray Pressure . . 40 psi
Airspeed . . . . . 120 mph
Flow Rate . . . . .6 gpm
Tank Mix: 12 OZ NALCO/100 GAL

FILE: C: \PMS\DATA\06058610.004







Nozzle	D8-46	Distance to Probe	40 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	360
Airspeed	50 mph	Number of Scans	8
Flow Rate	1.84 gpm	Scan Spacing	5 cm.
Tank Mix	WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\06068609.005

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	3.03E+07	1.01	5.94	0.04	13.07	0.09
6.9	9.30E+06	1.07	1.91	0.05	17.08	0.19
11.0	1.51E+07	6.56	1.59	0.15	23.60	0.79
13.2	1.21E+07	11.49	2.37	0.48	28.82	1.84
15.4	3.09E+07	48.16	6.07	2.00	42.17	6.24
20.5	4.67E+07	149.78	3.95	2.68	62.32	19.93
23.6	2.26E+07	128.52	3.14	3.79	72.07	31.67
25.7	1.90E+07	149.86	3.91	6.52	80.28	45.36
27.6	1.62E+07	160.93	3.68	7.74	87.27	60.07
29.5	1.23E+07	150.35	2.80	7.23	92.58	73.80
31.5	9.35E+06	139.24	2.02	6.36	96.62	86.53
34.4	7.84E+06	147.45	1.17	4.65	100.00	100.00
TOTAL	2.32E+08	1094.42				

NUMBER MEAN DIA.= D_{10}.... 17.54 µm
VOLUME MEAN DIA.= D_{30}.... 20.82 µm
SAUTER MEAN DIA.= D_{32}.... 23.90 µm

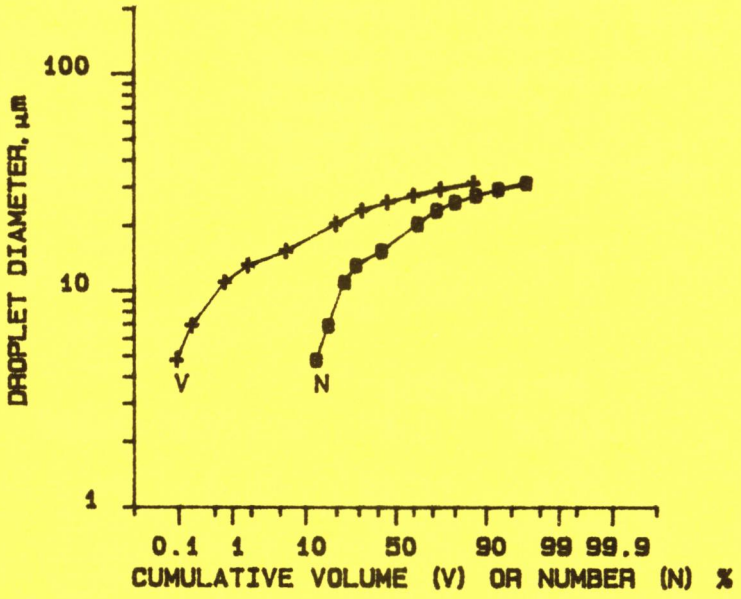
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 17.38 µm
$D_{N.9}$... 28.58 µm

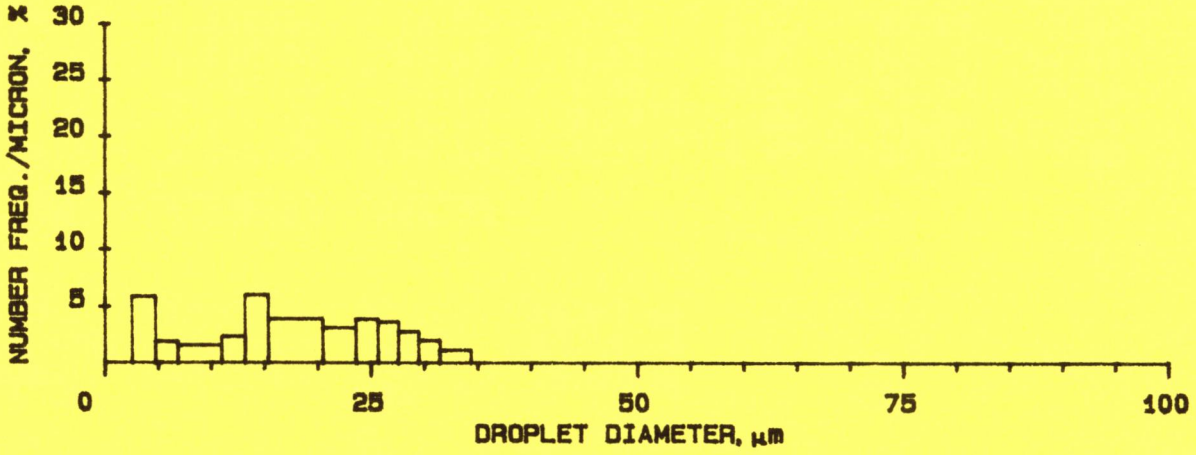
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.80 µm
$D_{V.5}$... 26.30 µm
$D_{V.9}$... 32.25 µm

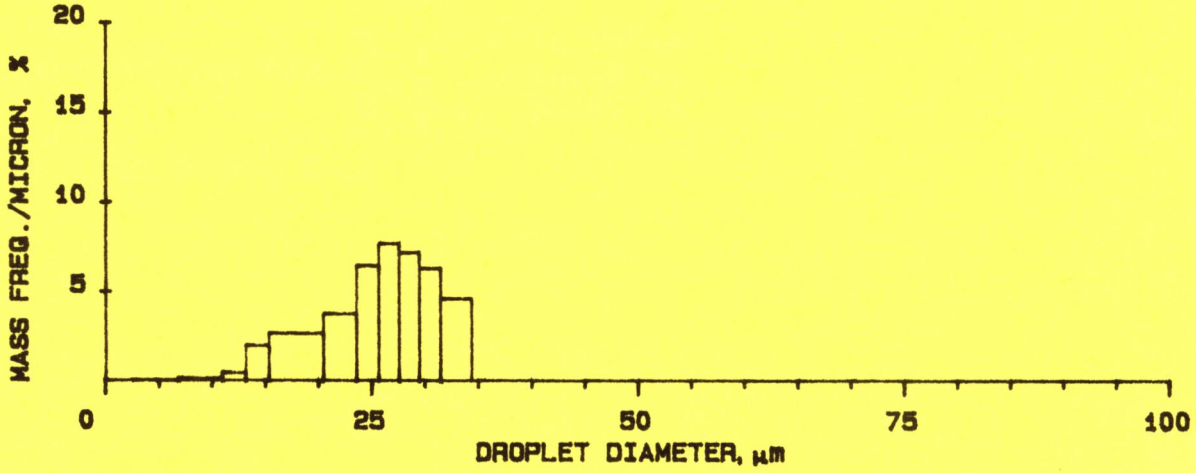
RELATIVE SPAN= 0.59

Nozzle Type . . . D8-46
Angle to Airstream 0°
Spray Pressure . . 40 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 1.84 gpm
Tank Mix: WATER

FILE: C:\PMS\DATA\06068609.005







Nozzle	D8-46	Distance to Probe	40 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	360
Airspeed	50 mph	Number of Scans	8
Flow Rate	1.38 gpm	Scan Spacing	5 cm.
Tank Mix	3 OZ NALCO/100 GAL	Scan Length	40 cm.

FILE: C:\PMS\DATA\06068609.006

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.46E+07	0.49	6.45	0.05	14.19	0.11
6.9	4.98E+06	0.57	2.30	0.06	19.02	0.23
11.0	8.75E+06	3.80	2.07	0.20	27.52	1.06
13.2	6.35E+06	6.03	2.80	0.60	33.69	2.38
15.4	1.44E+07	22.44	6.37	2.23	47.70	7.27
20.5	1.87E+07	60.01	3.56	2.57	65.87	20.37
23.6	8.63E+06	49.08	2.70	3.45	74.25	31.08
25.7	7.15E+06	56.31	3.31	5.85	81.19	43.36
27.6	6.11E+06	60.69	3.12	6.97	87.13	56.61
29.5	5.08E+06	62.01	2.60	7.12	92.06	70.14
31.5	4.31E+06	64.17	2.09	7.00	96.25	84.14
34.4	3.86E+06	72.68	1.29	5.47	100.00	100.00
TOTAL	1.03E+08	458.28				

NUMBER MEAN DIA.= D_{10}.... 16.83 µm
VOLUME MEAN DIA.= D_{30}.... 20.42 µm
SAUTER MEAN DIA.= D_{32}.... 23.87 µm

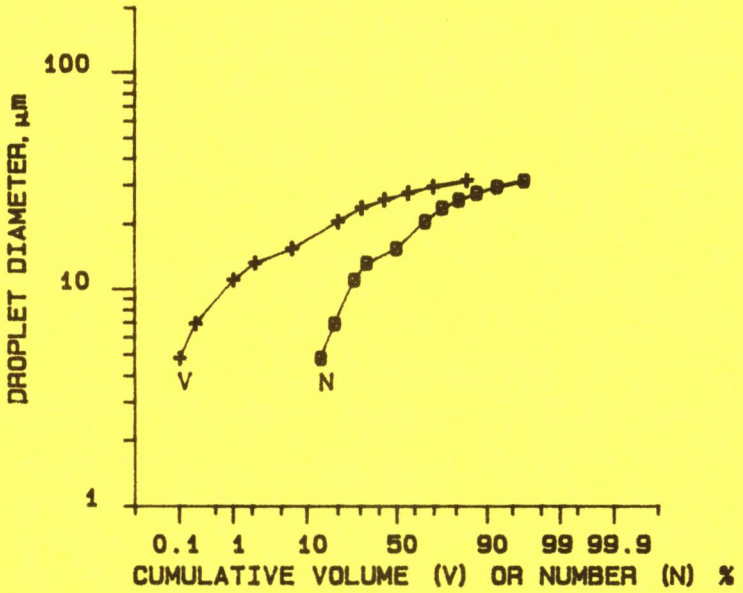
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 16.05 µm
$D_{N.9}$... 28.71 µm

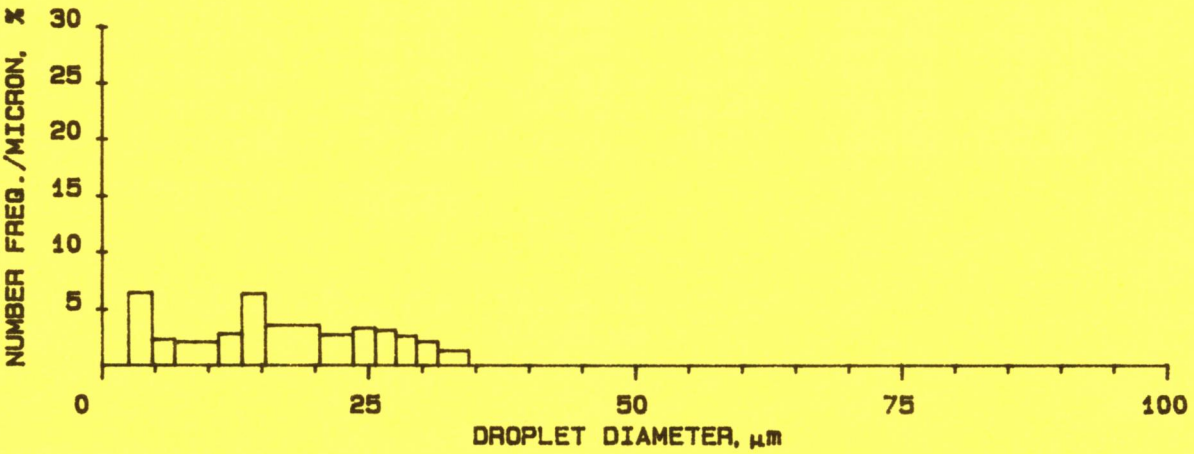
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.46 µm
$D_{V.5}$... 26.65 µm
$D_{V.9}$... 32.57 µm

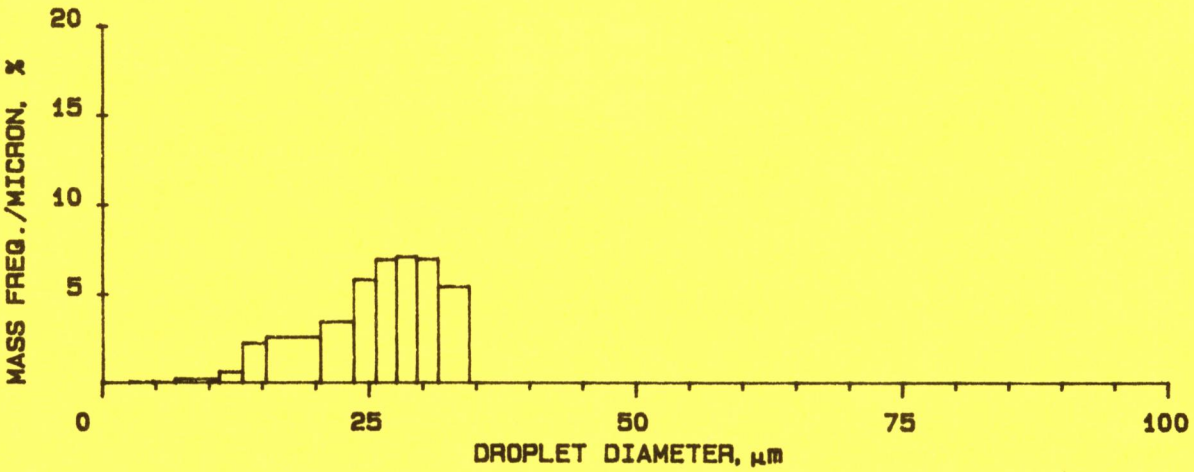
RELATIVE SPAN= 0.60

Nozzle Type . . . D8-46
Angle to Airstream 0°
Spray Pressure . . 40 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 1.38 gpm
Tank Mix: 3 OZ NALCO/100 GAL

FILE: C:\PMS\DATA\06068609.006







Nozzle	D8-46	Distance to Probe	40 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	240
Airspeed	50 mph	Number of Scans	6
Flow Rate	1.38 gpm	Scan Spacing	5 cm.
Tank Mix	6 OZ NALCO/100 GAL	Scan Length	40 cm.

FILE: C:\PMS\DATA\06068611.007

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.03E+07	0.35	7.27	0.06	16.00	0.14
6.9	4.32E+06	0.50	3.19	0.09	22.69	0.34
11.0	7.07E+06	3.07	2.67	0.30	33.65	1.57
13.2	4.64E+06	4.41	3.27	0.81	40.84	3.35
15.4	9.15E+06	14.24	6.45	2.61	55.03	9.08
20.5	1.05E+07	33.74	3.20	2.66	71.33	22.66
23.6	4.54E+06	25.84	2.27	3.36	78.37	33.07
25.7	3.59E+06	28.28	2.65	5.42	83.93	44.45
27.6	3.47E+06	34.52	2.83	7.31	89.32	58.34
29.5	2.66E+06	32.47	2.17	6.88	93.44	71.41
31.5	2.19E+06	32.67	1.70	6.58	96.84	84.57
34.4	2.04E+06	38.34	1.09	5.32	100.00	100.00
TOTAL	6.45E+07	248.41				

NUMBER MEAN DIA.= D_{10}.... 15.61 µm
VOLUME MEAN DIA.= D_{30}.... 19.45 µm
SAUTER MEAN DIA.= D_{32}.... 23.30 µm

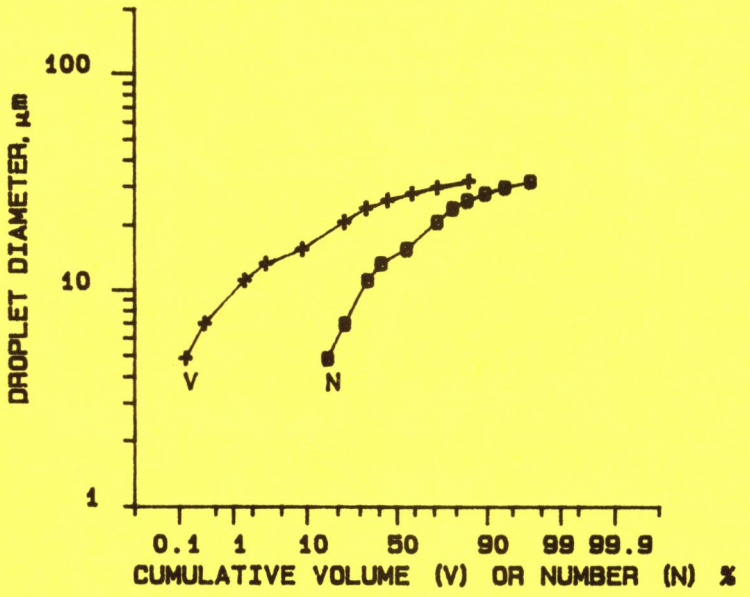
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 14.62 µm
$D_{N.9}$... 27.91 µm

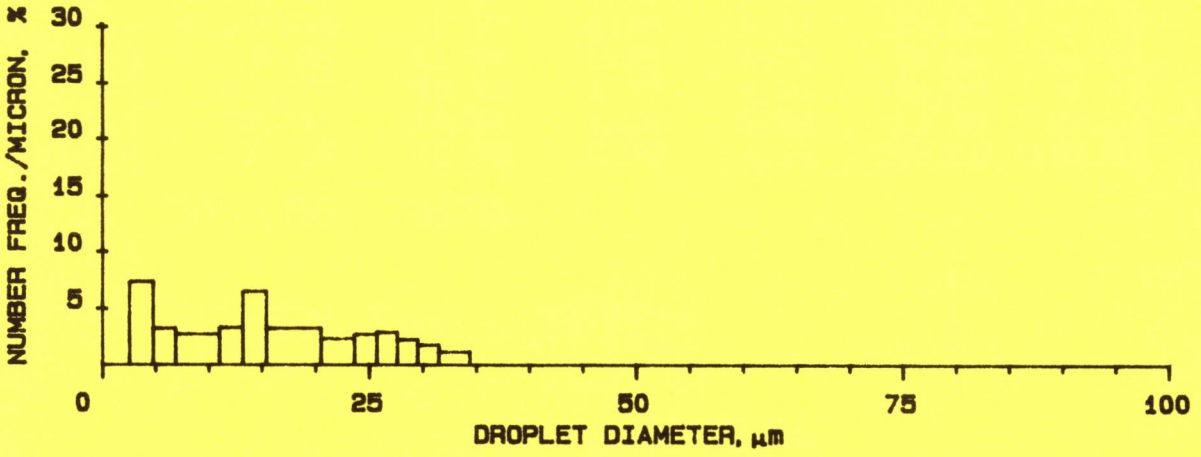
VOLUME MEDIAN DIA.= $D_{V.1}$... 15.74 µm
$D_{V.5}$... 26.46 µm
$D_{V.9}$... 32.52 µm

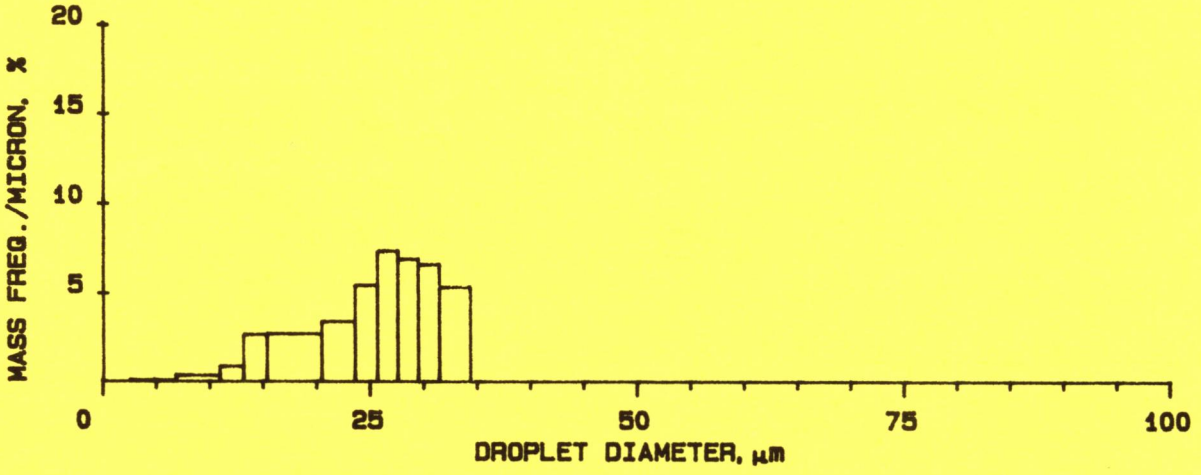
RELATIVE SPAN= 0.63

Nozzle Type . . . D8-46
Angle to Airstream 0 °
Spray Pressure . . 40 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 1.38 gpm
Tank Mix: 6 OZ NALCO/100 GAL

FILE: C:\PMS\DATA\06068611.007







Nozzle	D8-46	Distance to Probe	40 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	40 psi	Number of Samples	480
Airspeed	50 mph	Number of Scans	12
Flow Rate	1.38 gpm	Scan Spacing	2.5 cm.
Tank Mix	9 OZ NALCO/100 GAL	Scan Length	40 cm.

FILE: C:\PMS\DATA\06068611.008

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	6.98E+06	0.23	9.42	0.12	20.72	0.26
6.9	3.30E+06	0.38	4.67	0.20	30.53	0.68
11.0	5.10E+06	2.21	3.69	0.59	45.67	3.11
13.2	2.89E+06	2.75	3.90	1.38	54.26	6.14
15.4	4.65E+06	7.24	6.28	3.63	68.08	14.12
20.5	4.39E+06	14.08	2.56	3.04	81.12	29.64
23.6	1.70E+06	9.67	1.63	3.44	86.17	40.30
25.7	1.32E+06	10.37	1.86	5.44	90.08	51.73
27.6	1.18E+06	11.76	1.85	6.82	93.59	64.69
29.5	876607	10.70	1.37	6.21	96.19	76.49
31.5	709334	10.56	1.05	5.82	98.30	88.12
34.4	572759	10.78	0.59	4.10	100.00	100.00
TOTAL	3.37E+07	90.75				

NUMBER MEAN DIA.= D_{10}.... 13.24 µm
VOLUME MEAN DIA.= D_{30}.... 17.27 µm
SAUTER MEAN DIA.= D_{32}.... 21.61 µm

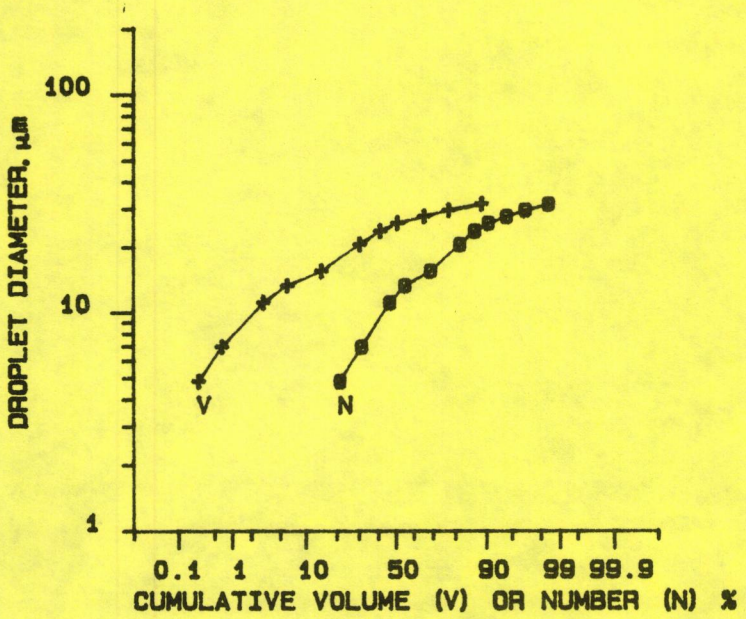
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 12.11 µm
$D_{N.9}$... 25.66 µm

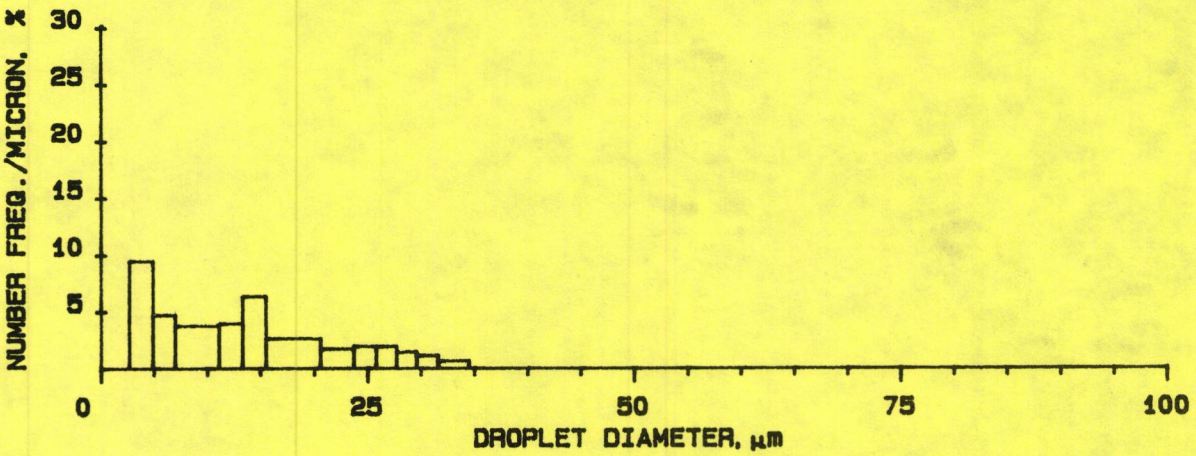
VOLUME MEDIAN DIA.= $D_{V.1}$... 14.26 µm
$D_{V.5}$... 25.38 µm
$D_{V.9}$... 31.96 µm

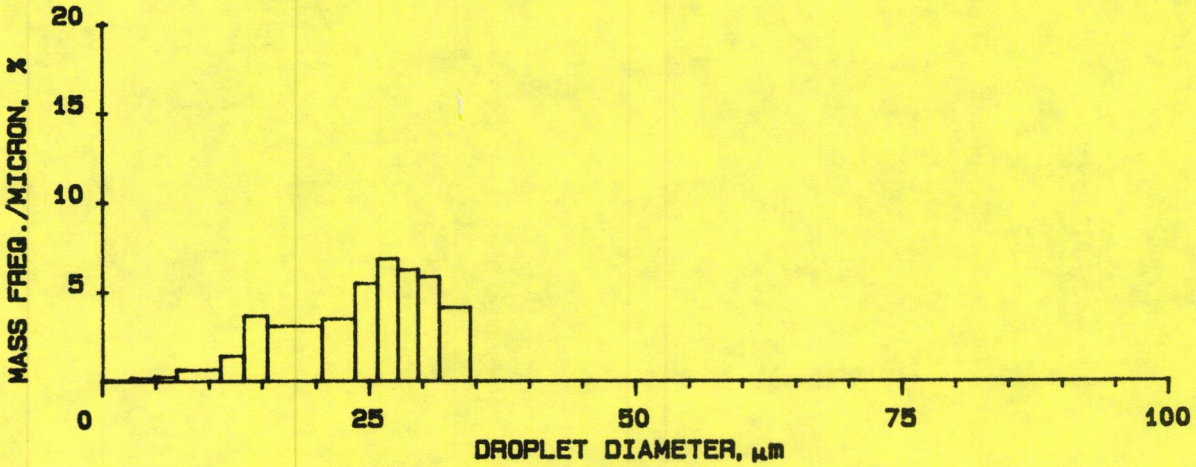
RELATIVE SPAN= 0.70

Nozzle Type . . . D8-46
Angle to Airstream 0°
Spray Pressure . . 40 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 1.38 gpm
Tank Mix: 9 OZ NALCO/100 GAL

FILE: C: \PMS\DATA\06068611.008







Nozzle	RD10(D10-45)	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	240
Airspeed	50 mph	Number of Scans	6
Flow Rate	.94 gpm	Scan Spacing	6 cm.
Tank Mix	5% SIM. ESTERON 99C 95% WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\09048610.002

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	4.29E+06	0.14	10.97	0.07	24.14	0.16
6.9	1.32E+06	0.15	3.53	0.08	31.55	0.32
11.0	1.11E+06	0.48	1.52	0.13	37.77	0.84
13.2	1.39E+06	1.32	3.55	0.65	45.58	2.28
15.4	1.53E+06	2.39	3.92	1.18	54.20	4.87
20.5	1.37E+06	4.40	1.51	0.94	61.92	9.66
23.6	777061	4.42	1.41	1.55	66.29	14.47
25.7	1.04E+06	8.22	2.79	4.26	72.16	23.41
27.6	1.06E+06	10.49	3.12	6.00	78.10	34.82
29.5	1.26E+06	15.40	3.73	8.82	85.19	51.57
31.5	1.27E+06	18.97	3.58	10.31	92.36	72.20
34.4	1.36E+06	25.57	2.63	9.59	100.00	100.00
TOTAL	1.78E+07	91.95				

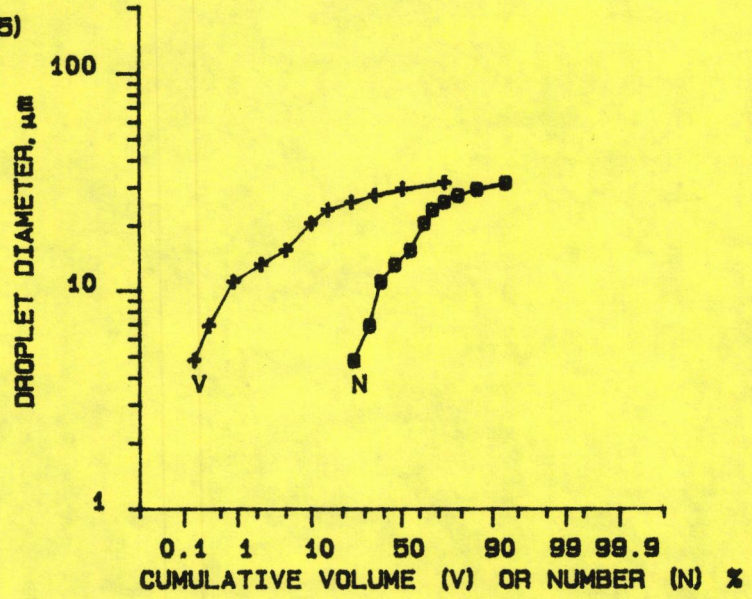
NUMBER MEAN DIA.= D_{10} .... 16.34 µm
VOLUME MEAN DIA.= D_{30} .... 21.46 µm
SAUTER MEAN DIA.= D_{32} .... 26.37 µm

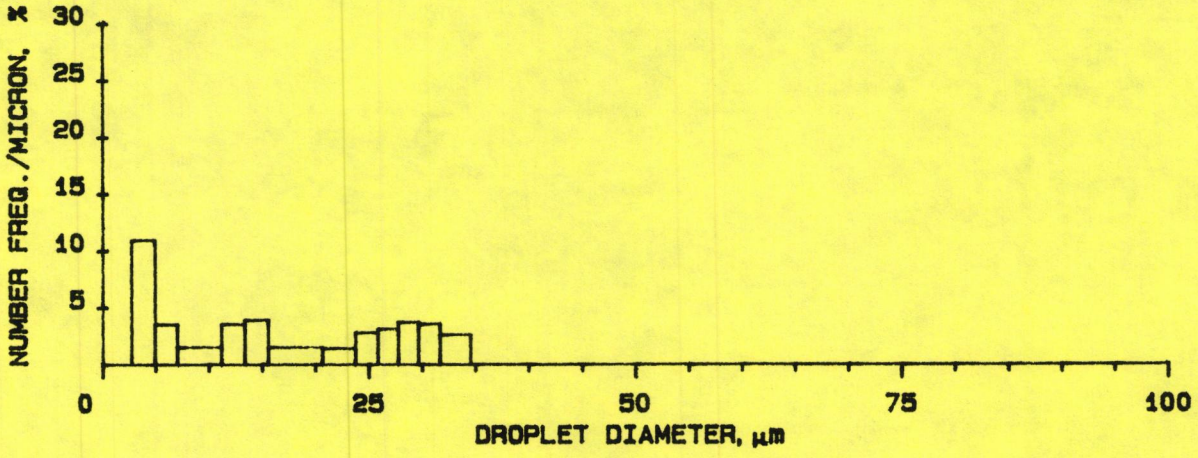
NUMBER MEDIAN DIA.= $D_{N.1}$ ... < 4.8 µm
$D_{N.5}$ ... 14.33 µm
$D_{N.9}$ ... 30.84 µm

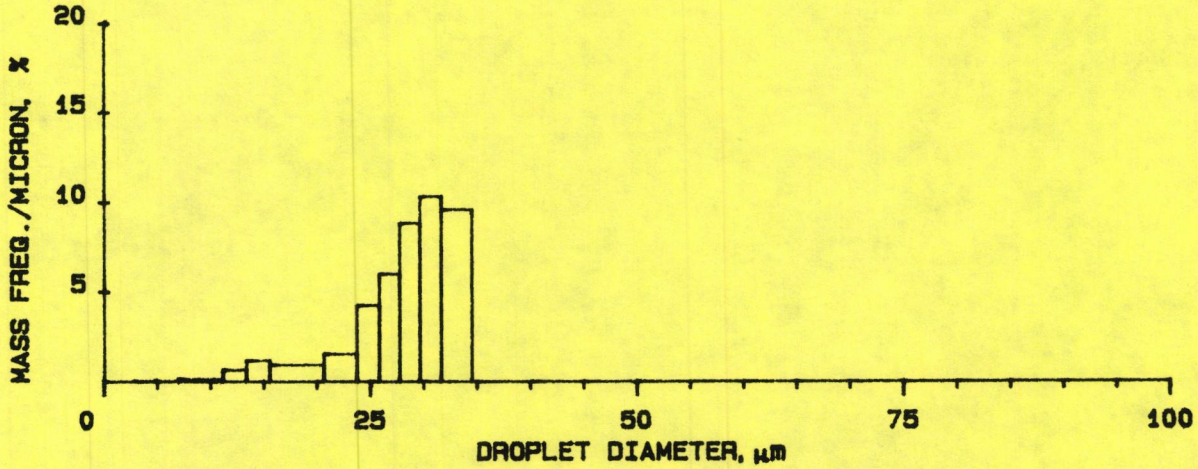
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 20.72 µm
$D_{V.5}$ ... 29.32 µm
$D_{V.9}$ ... 33.36 µm

RELATIVE SPAN= 0.43

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 5% SIM. ESTERON 99C
95% WATER
FILE: C:\PMS\DATA\09048610.002







Nozzle	D10-45	Distance to Probe	31 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	8
Flow Rate	.94 gpm	Scan Spacing	5 cm.
Tank Mix	5% SIM. ESTERON 99C 95% WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\09048610.001

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.50E+07	0.50	7.78	0.03	17.11	0.07
6.9	3.45E+06	0.40	1.87	0.03	21.04	0.13
11.0	2.03E+06	0.88	0.56	0.03	23.35	0.26
13.2	2.18E+06	2.07	1.13	0.14	25.82	0.56
15.4	3.34E+06	5.19	1.73	0.34	29.62	1.31
20.5	6.47E+06	20.77	1.44	0.59	36.99	4.31
23.6	6.47E+06	36.81	2.37	1.72	44.35	9.64
25.7	8.78E+06	69.12	4.75	4.76	54.33	19.65
27.6	1.00E+07	99.51	6.00	7.58	65.73	34.05
29.5	1.09E+07	132.94	6.52	10.13	78.11	53.29
31.5	1.00E+07	148.87	5.69	10.77	89.49	74.84
34.4	9.24E+06	173.81	3.62	8.68	100.00	100.00
TOTAL	8.79E+07	690.87				

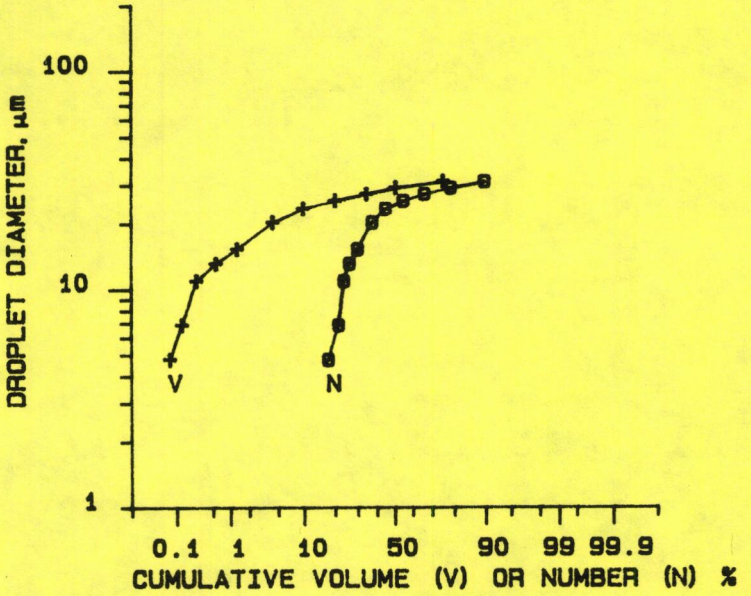
NUMBER MEAN DIA.= D_{10} ... 20.96 µm
VOLUME MEAN DIA.= D_{30} ... 24.68 µm
SAUTER MEAN DIA.= D_{32} ... 27.71 µm

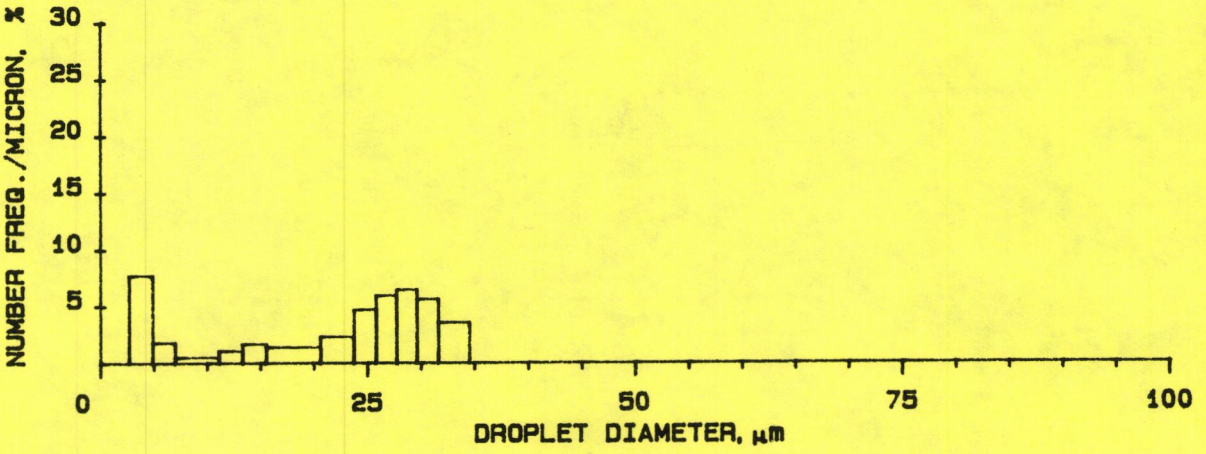
NUMBER MEDIAN DIA.= $D_{N.1}$ ... < 4.8 µm
$D_{N.5}$ ... 24.79 µm
$D_{N.9}$ ... 31.64 µm

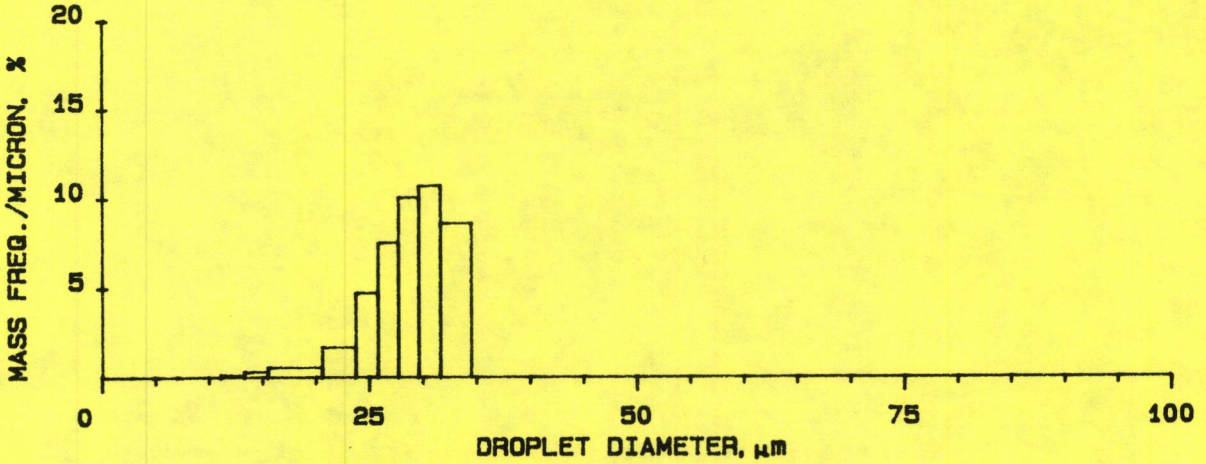
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 23.68 µm
$D_{V.5}$ ... 29.17 µm
$D_{V.9}$ ... 33.25 µm

RELATIVE SPAN= 0.33

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 5% SIM. ESTERON 99C
95% WATER
FILE: C:\PMS\DATA\09048610.001







Nozzle	D10 JET	Distance to Probe	198 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	12
Flow Rate	2.35 gpm	Scan Spacing	1.66 cm.
Tank Mix	10% SIM.ESTERON 99C 90% WATER	Scan Length	35 cm.

FILE: C:\PMS\DATA\08048612.007

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.70E+07	0.57	5.66	0.04	12.45	0.09
6.9	7.35E+06	0.84	2.56	0.06	17.82	0.23
11.0	1.10E+07	4.79	1.97	0.19	25.90	1.00
13.2	1.18E+07	11.21	3.93	0.82	34.54	2.80
15.4	1.61E+07	25.09	5.36	1.83	46.33	6.83
20.5	2.36E+07	75.75	3.39	2.39	63.60	19.01
23.6	1.27E+07	72.21	2.99	3.75	72.89	30.62
25.7	1.11E+07	87.07	3.85	6.67	80.98	44.62
27.6	8.56E+06	85.08	3.30	7.20	87.24	58.30
29.5	7.08E+06	86.43	2.73	7.31	92.42	72.20
31.5	5.63E+06	83.86	2.06	6.74	96.54	85.68
34.4	4.73E+06	89.06	1.19	4.94	100.00	100.00
TOTAL	1.37E+08	621.96				

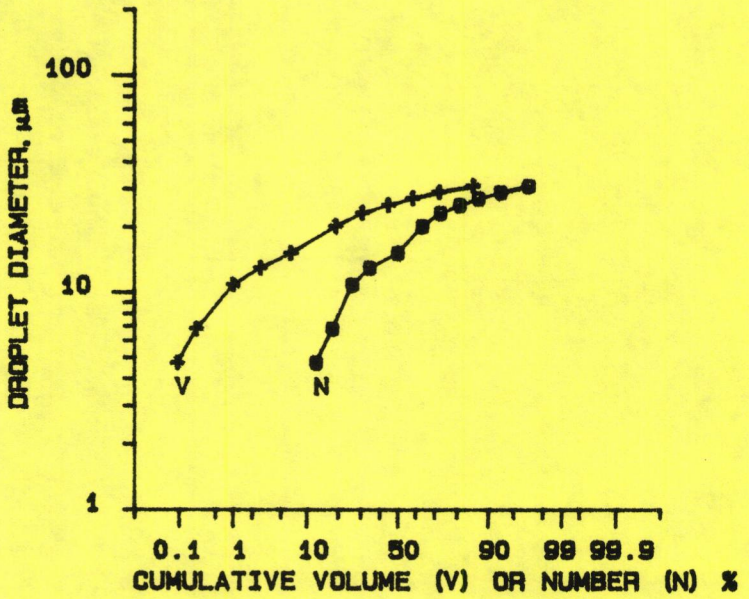
NUMBER MEAN DIA.= D_{10}.... 17.10 µm
VOLUME MEAN DIA.= D_{30}.... 20.57 µm
SAUTER MEAN DIA.= D_{32}.... 23.89 µm

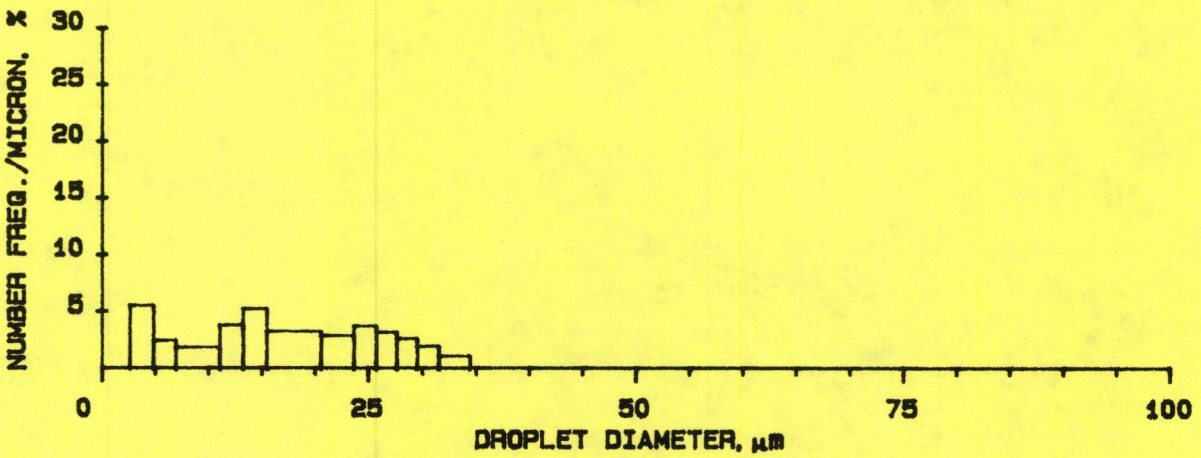
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 16.48 µm
$D_{N.9}$... 28.61 µm

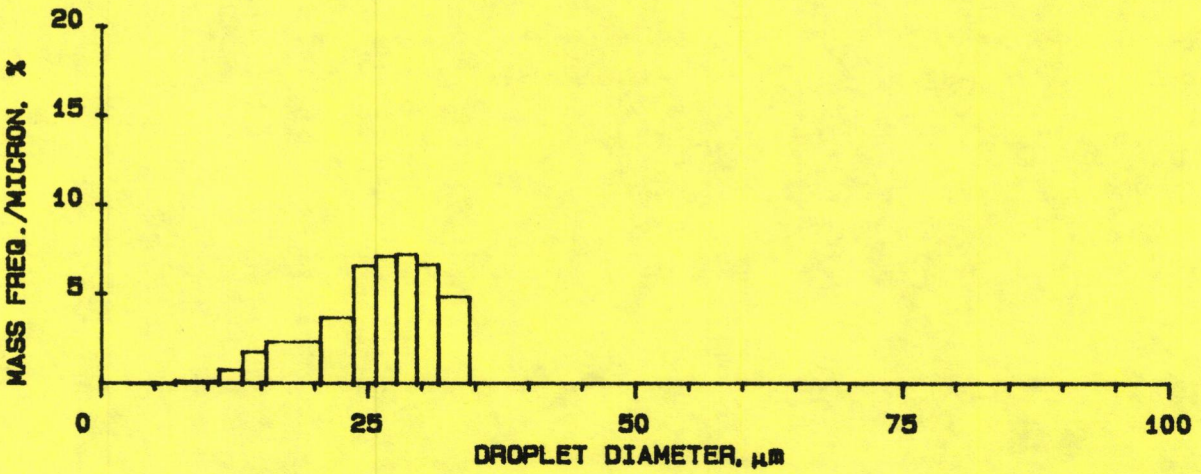
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.73 µm
$D_{V.5}$... 26.45 µm
$D_{V.9}$... 32.37 µm

RELATIVE SPAN= 0.59

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 2.35 gpm
Tank Mix: 10% SIM.ESTERON 99C
90% WATER
FILE: C:\PMS\DATA\08048612.007







Nozzle	RD10(D10-45)	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	240
Airspeed	50 mph	Number of Scans	6
Flow Rate	.94 gpm	Scan Spacing	6 cm.
Tank Mix	10% SIM. VELPAR 90% WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\09058609.003

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	6.87E+06	0.23	7.80	0.05	17.17	0.11
6.9	2.49E+06	0.29	2.97	0.06	23.39	0.24
11.0	3.53E+06	1.53	2.15	0.18	32.21	0.96
13.2	2.33E+06	2.22	2.65	0.47	38.04	2.00
15.4	3.95E+06	6.15	4.49	1.31	47.91	4.89
20.5	4.68E+06	15.03	2.29	1.38	59.61	11.96
23.6	2.49E+06	14.19	2.01	2.15	65.84	18.62
25.7	2.65E+06	20.85	3.15	4.67	72.45	28.42
27.6	2.93E+06	29.12	3.85	7.20	79.77	42.10
29.5	2.86E+06	34.92	3.76	8.64	86.91	58.51
31.5	2.63E+06	39.08	3.28	9.18	93.47	76.87
34.4	2.62E+06	49.22	2.25	7.98	100.00	100.00
TOTAL	4.00E+07	212.82				

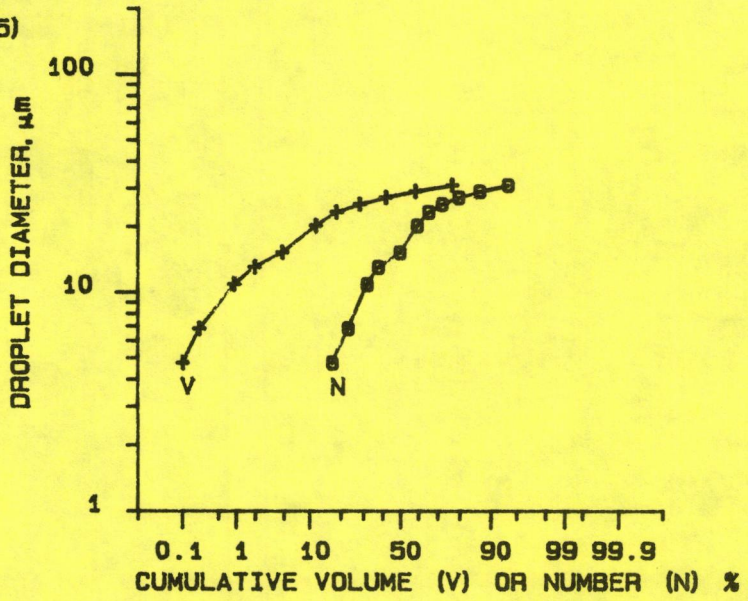
NUMBER MEAN DIA.= D_{10}.... 17.33 µm
VOLUME MEAN DIA.= D_{30}.... 21.66 µm
SAUTER MEAN DIA.= D_{32}.... 25.74 µm

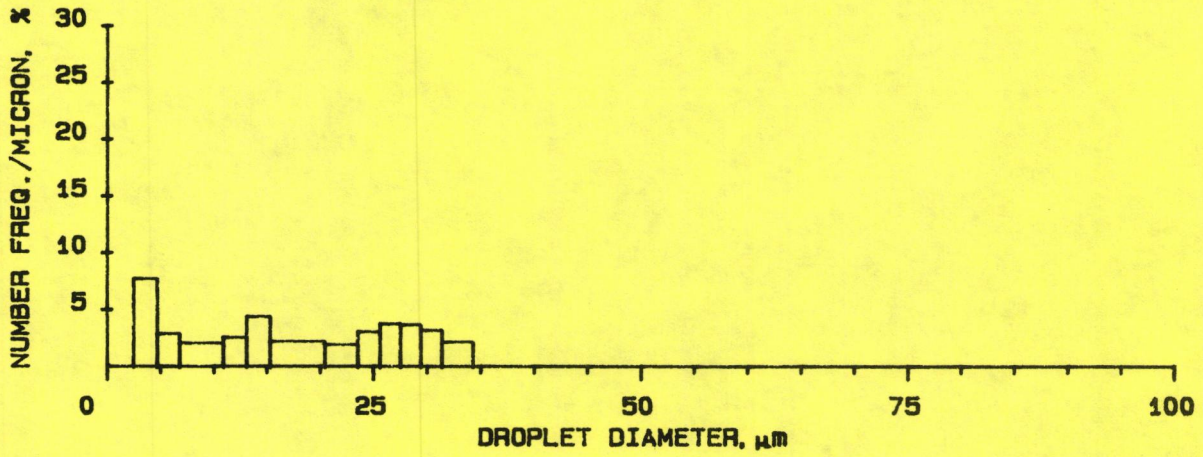
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 16.31 µm
$D_{N.9}$... 30.44 µm

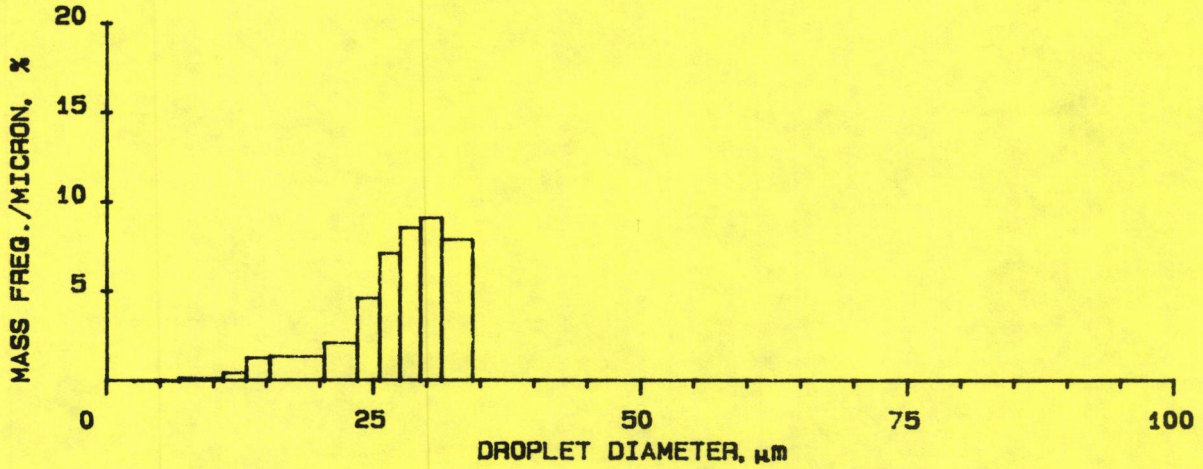
VOLUME MEDIAN DIA.= $D_{V.1}$... 19.09 µm
$D_{V.5}$... 28.51 µm
$D_{V.9}$... 33.15 µm

RELATIVE SPAN= 0.49

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0 °
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 10% SIM. VELPAR 9
0% WATER
FILE: C:\PMS\DATA\09058609.003







Nozzle	D10-45	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	8
Flow Rate	.94 gpm	Scan Spacing	5 cm.
Tank Mix	10% SIM. VELPAR	Scan Length	40 cm.
	90% WATER		

FILE: C:\PMS\DATA\09058610.004

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.25E+07	0.75	5.82	0.03	12.80	0.06
6.9	6.89E+06	0.79	1.86	0.03	16.72	0.13
11.0	9.64E+06	4.18	1.34	0.08	22.20	0.48
13.2	7.06E+06	6.71	1.82	0.25	26.21	1.03
15.4	1.30E+07	20.19	3.35	0.76	33.59	2.71
20.5	2.11E+07	67.81	2.36	1.10	45.60	8.33
23.6	1.44E+07	81.82	2.64	2.19	53.78	15.12
25.7	1.64E+07	129.51	4.45	5.12	63.12	25.86
27.6	1.75E+07	174.31	5.25	7.61	73.09	40.32
29.5	1.67E+07	203.71	4.99	8.89	82.57	57.21
31.5	1.55E+07	231.16	4.41	9.59	91.40	76.39
34.4	1.51E+07	284.72	2.97	8.14	100.00	100.00
TOTAL	1.76E+08	1205.68				

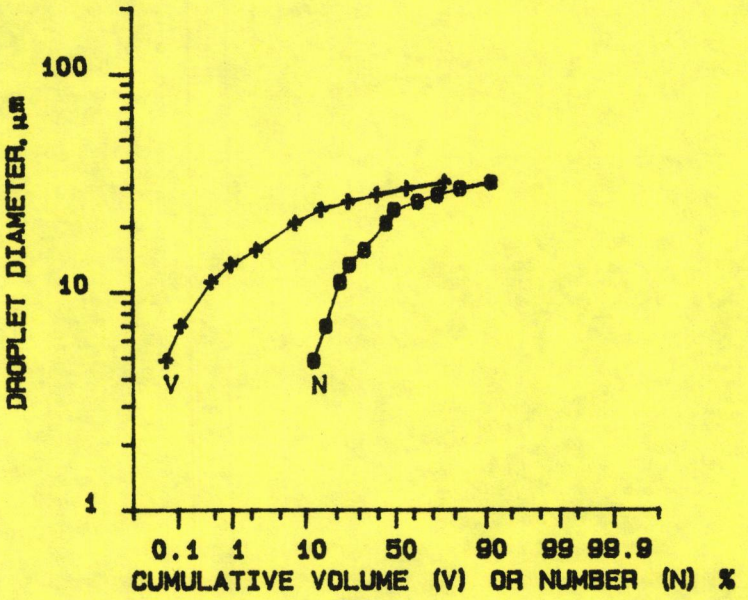
NUMBER MEAN DIA.= D_{10}.... 20.04 µm
VOLUME MEAN DIA.= D_{30}.... 23.58 µm
SAUTER MEAN DIA.= D_{32}.... 26.67 µm

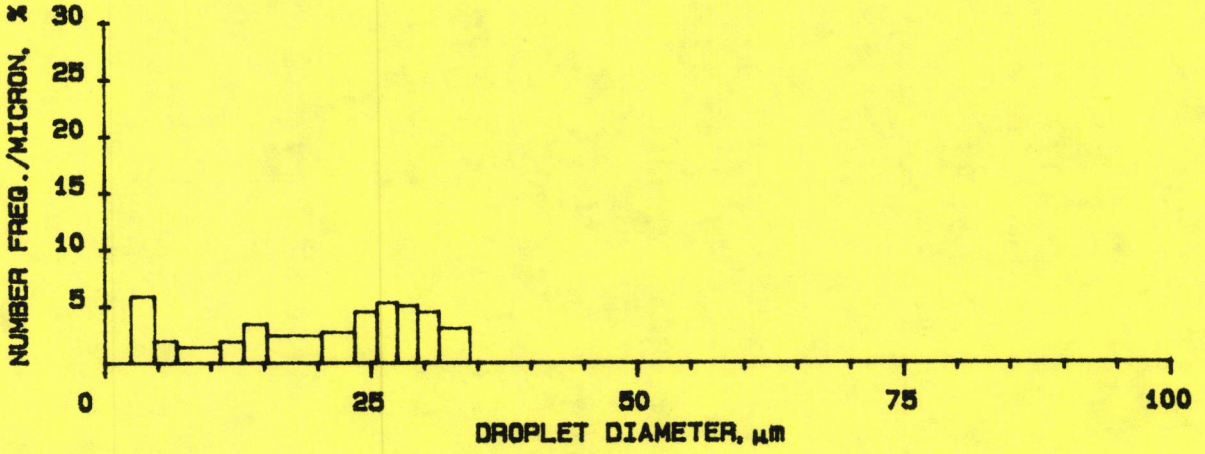
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 22.17 µm
$D_{N.9}$... 31.18 µm

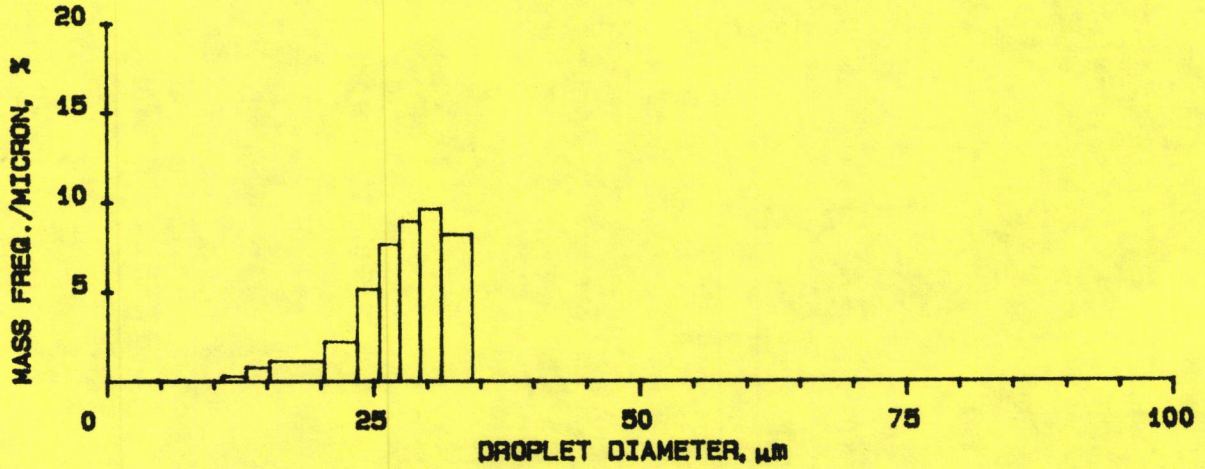
VOLUME MEDIAN DIA.= $D_{V.1}$... 21.26 µm
$D_{V.5}$... 28.69 µm
$D_{V.9}$... 33.17 µm

RELATIVE SPAN= 0.42

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 10% SIM. VELPAR
90% WATER
FILE: C:\PMS\DATA\09058610.004







Nozzle	D10 JET	Distance to Probe	198 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	12
Flow Rate	2.35 gpm	Scan Spacing	1.66 cm.
Tank Mix	10% SIM. VELPAR 90% WATER	Scan Length	35 cm.

FILE: C:\PMS\DATA\08048613.008

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.39E+07	0.80	5.76	0.04	12.68	0.09
6.9	1.07E+07	1.23	2.70	0.06	18.35	0.22
11.0	1.23E+07	5.35	1.59	0.14	24.89	0.81
13.2	9.28E+06	8.81	2.24	0.44	29.81	1.77
15.4	2.22E+07	34.56	5.35	1.72	41.57	5.55
20.5	3.74E+07	119.90	3.88	2.57	61.38	18.65
23.6	1.87E+07	106.22	3.19	3.74	71.27	30.26
25.7	1.55E+07	121.99	3.91	6.35	79.48	43.59
27.6	1.27E+07	126.69	3.56	7.29	86.23	57.43
29.5	1.00E+07	122.08	2.79	7.02	91.53	70.77
31.5	8.48E+06	126.27	2.25	6.90	96.02	84.57
34.4	7.50E+06	141.23	1.37	5.32	100.00	100.00
TOTAL	1.89E+08	915.15				

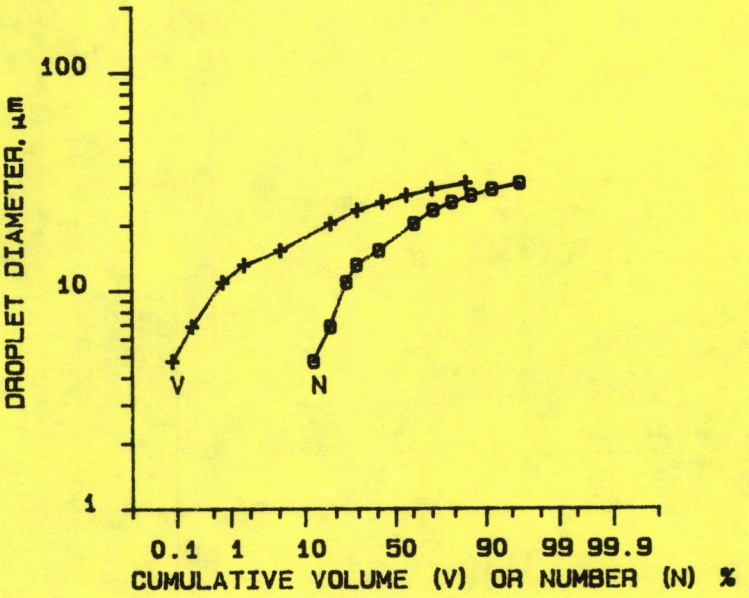
NUMBER MEAN DIA.= D_{10}.... 17.60 µm
VOLUME MEAN DIA.= D_{30}.... 21.01 µm
SAUTER MEAN DIA.= D_{32}.... 24.20 µm

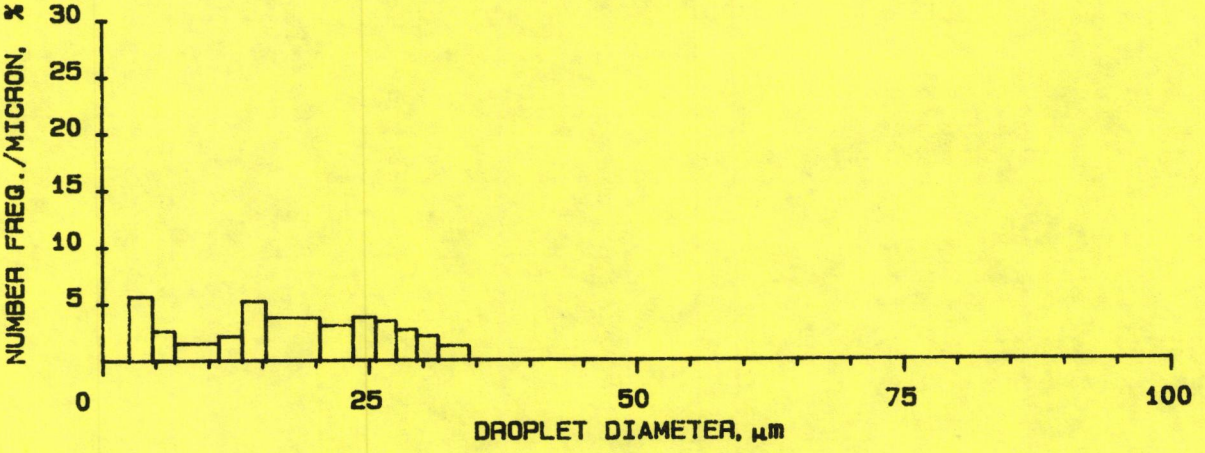
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 17.57 µm
$D_{N.9}$... 28.95 µm

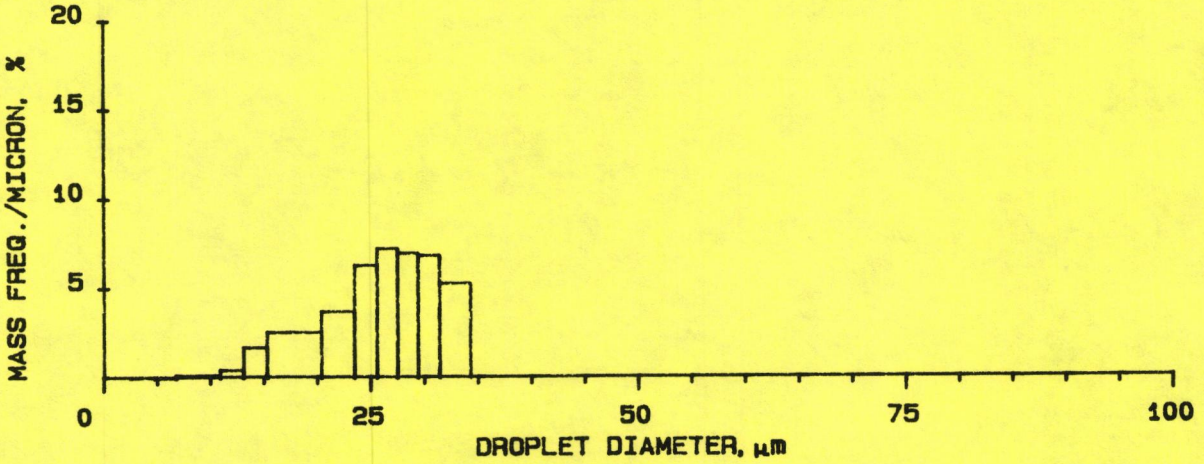
VOLUME MEDIAN DIA.= $D_{V.1}$... 17.13 µm
$D_{V.5}$... 26.58 µm
$D_{V.9}$... 32.52 µm

RELATIVE SPAN= 0.58

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 2.35 gpm
Tank Mix: 10% SIM. VELPAR
90% WATER
FILE: C:\PMS\DATA\08048613.008







Nozzle	RD10(D10-45)	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	240
Airspeed	50 mph	Number of Scans	6
Flow Rate	.94 gpm	Scan Spacing	6 cm.
Tank Mix	10 % SIM. AATREX 4L 90% WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\09058611.006

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.05E+07	0.35	12.95	0.09	28.49	0.19
6.9	2.63E+06	0.30	3.42	0.08	35.67	0.36
11.0	2.33E+06	1.01	1.55	0.14	42.00	0.92
13.2	1.12E+06	1.06	1.39	0.27	45.05	1.51
15.4	2.30E+06	3.58	2.85	0.90	51.33	3.50
20.5	3.55E+06	11.38	1.90	1.24	60.99	9.80
23.6	2.30E+06	13.10	2.02	2.34	67.27	17.07
25.7	2.52E+06	19.88	3.28	5.25	74.15	28.09
27.6	2.67E+06	26.50	3.83	7.73	81.42	42.78
29.5	2.43E+06	29.62	3.48	8.64	88.03	59.20
31.5	2.30E+06	34.25	3.14	9.49	94.30	78.18
34.4	2.09E+06	39.36	1.97	7.52	100.00	100.00
TOTAL	3.67E+07	180.40				

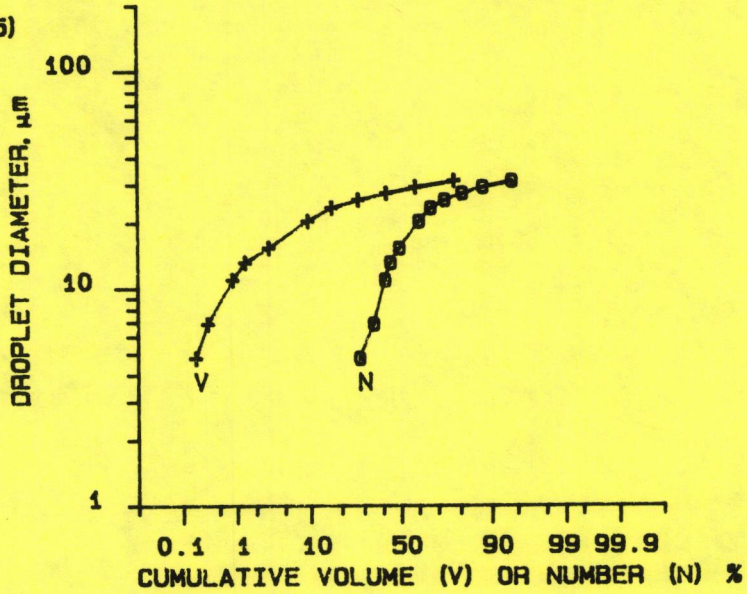
NUMBER MEAN DIA.= D_{10} .... 15.93 µm
VOLUME MEAN DIA.= D_{30} .... 21.11 µm
SAUTER MEAN DIA.= D_{32} .... 25.98 µm

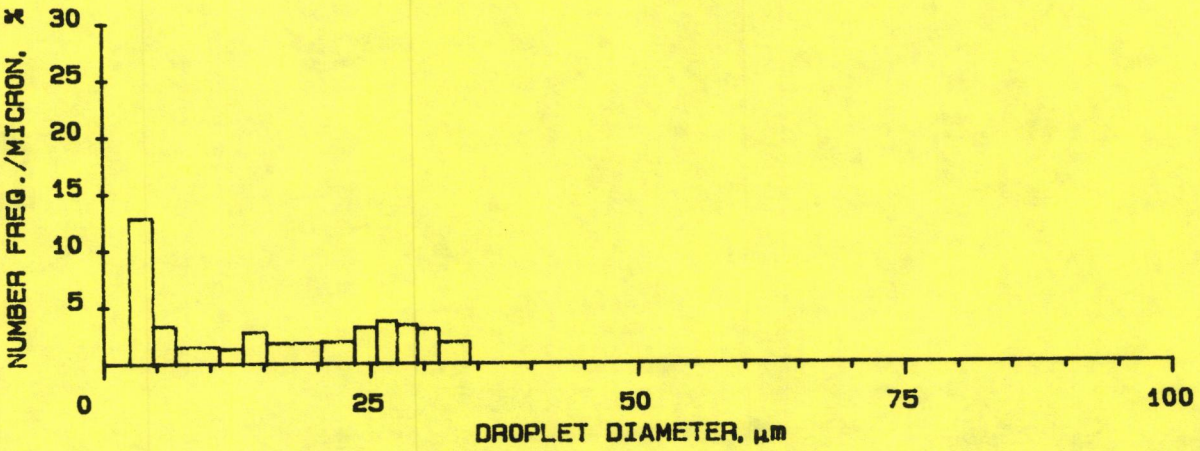
NUMBER MEDIAN DIA.= $D_{N.1}$ ... < 4.8 µm
$D_{N.5}$ ... 14.93 µm
$D_{N.9}$ ... 30.13 µm

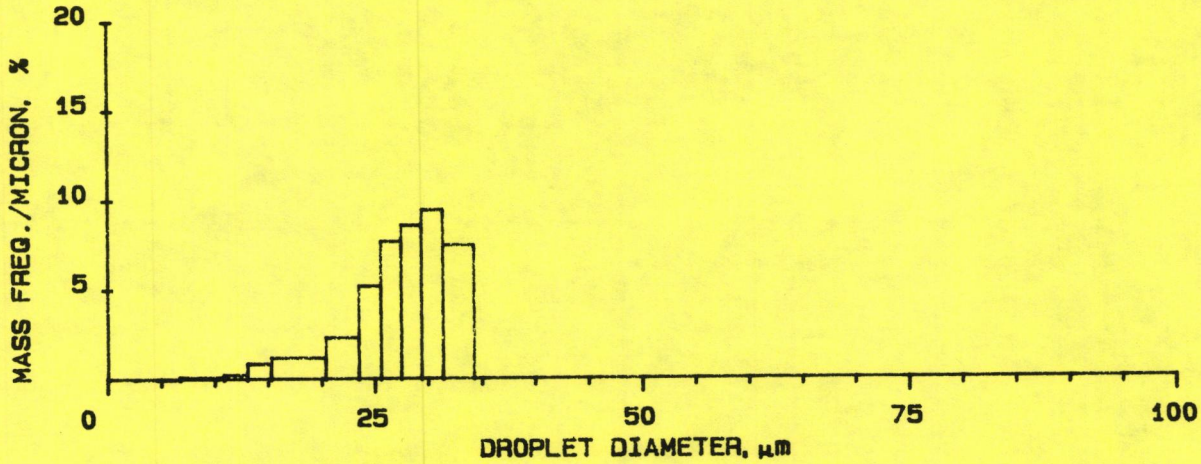
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 20.58 µm
$D_{V.5}$ ... 28.44 µm
$D_{V.9}$ ... 33.07 µm

RELATIVE SPAN= 0.44

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 10 % SIM. AATREX 4L
90% WATER
FILE: C:\PMS\DATA\09058611.006







Nozzle	D10-45	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	8
Flow Rate	.94 gpm	Scan Spacing	5 cm.
Tank Mix	10 % SIM. AATREX 4L 90% WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\09058610.005

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.79E+07	0.60	6.95	0.03	15.29	0.07
6.9	2.89E+06	0.33	1.17	0.02	17.75	0.11
11.0	2.59E+06	1.12	0.54	0.03	19.96	0.24
13.2	1.69E+06	1.60	0.65	0.09	21.40	0.43
15.4	5.68E+06	8.85	2.20	0.48	26.25	1.48
20.5	1.60E+07	51.40	2.68	1.19	39.91	7.56
23.6	1.24E+07	70.33	3.40	2.69	50.46	15.89
25.7	1.31E+07	103.05	5.31	5.81	61.62	28.08
27.6	1.35E+07	134.25	6.07	8.36	73.14	43.97
29.5	1.18E+07	144.26	5.30	8.99	83.22	61.05
31.5	1.05E+07	156.08	4.47	9.24	92.16	79.52
34.4	9.19E+06	173.02	2.70	7.06	100.00	100.00
TOTAL	1.17E+08	844.89				

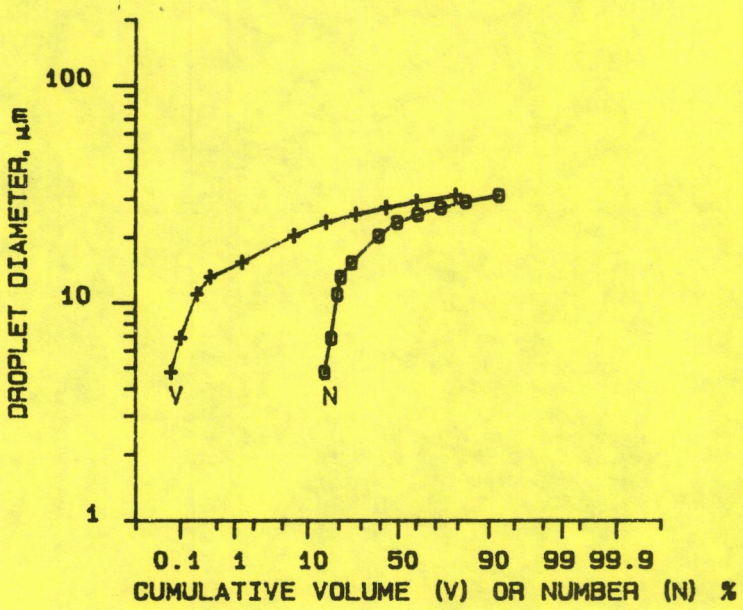
NUMBER MEAN DIA.= D_{10} ... 20.71 µm
VOLUME MEAN DIA.= D_{30} ... 23.97 µm
SAUTER MEAN DIA.= D_{32} ... 26.69 µm

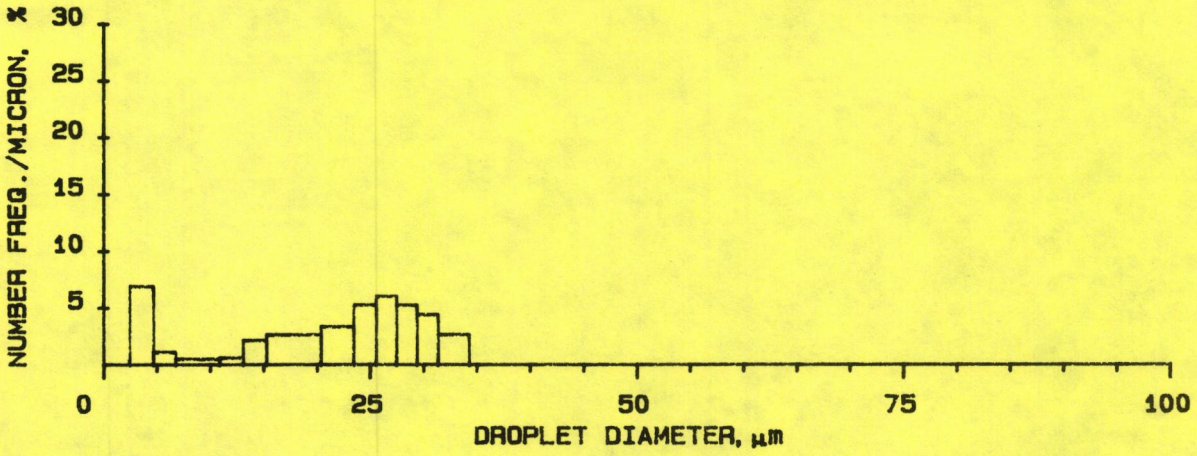
NUMBER MEDIAN DIA.= $D_{N.1}$ ... < 4.8 µm
$D_{N.5}$ ... 23.47 µm
$D_{N.9}$ ... 31.02 µm

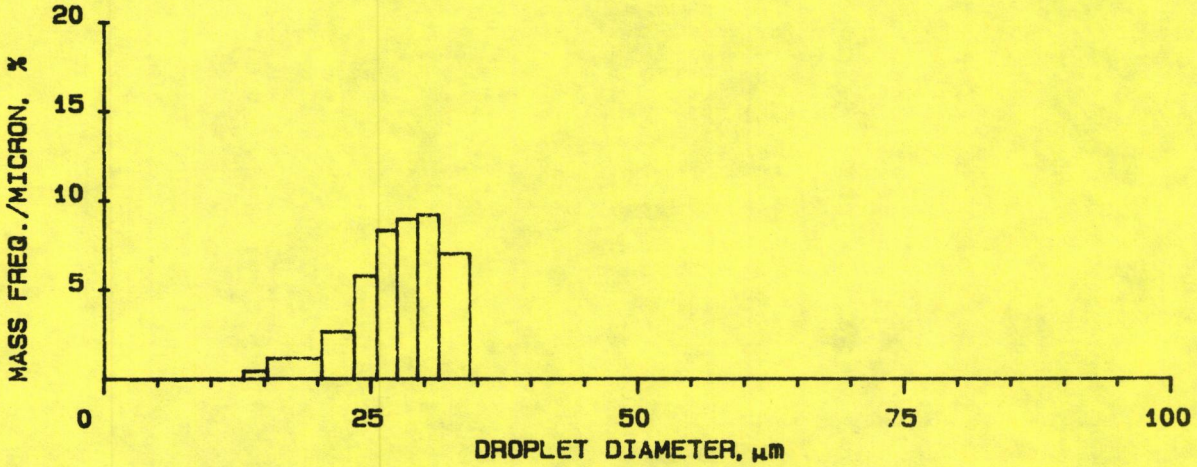
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 21.41 µm
$D_{V.5}$ ... 28.27 µm
$D_{V.9}$ ... 32.98 µm

RELATIVE SPAN= 0.41

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: 10 % SIM. AATREX 4L
90% WATER
FILE: C: \PMS\DATA\09058610.005







Nozzle	D10 JET	Distance to Probe	198 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	12
Flow Rate	2.35 gpm	Scan Spacing	1.66 cm.
Tank Mix	10% SIM.AATREX 4L	Scan Length	35 cm.
	90% WATER		

FILE: C:\PMS\DATA\08058607.009

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	3.17E+07	1.06	10.28	0.10	22.61	0.21
6.9	1.05E+07	1.21	3.58	0.11	30.13	0.45
11.0	1.03E+07	4.45	1.78	0.21	37.44	1.32
13.2	6.91E+06	6.56	2.24	0.59	42.36	2.62
15.4	1.74E+07	27.11	5.64	2.43	54.77	7.95
20.5	2.54E+07	81.57	3.55	3.15	72.89	24.01
23.6	1.01E+07	57.41	2.32	3.65	80.08	35.32
25.7	7.93E+06	62.46	2.69	5.86	85.73	47.62
27.6	6.62E+06	65.77	2.48	6.82	90.45	60.57
29.5	5.25E+06	64.14	1.97	6.65	94.19	73.20
31.5	4.38E+06	65.24	1.56	6.42	97.32	86.04
34.4	3.77E+06	70.89	0.93	4.81	100.00	100.00
TOTAL	1.40E+08	507.88				

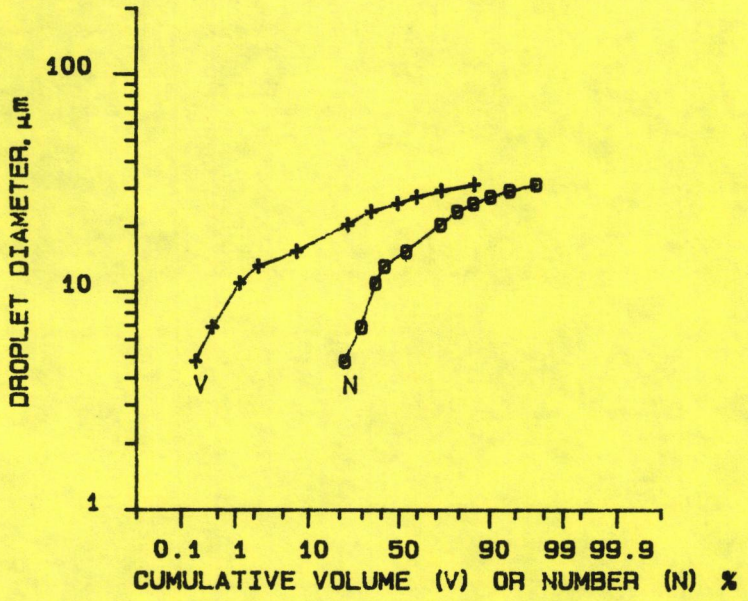
NUMBER MEAN DIA.= D_{10}.... 14.90 µm
VOLUME MEAN DIA.= D_{30}.... 19.06 µm
SAUTER MEAN DIA.= D_{32}.... 23.16 µm

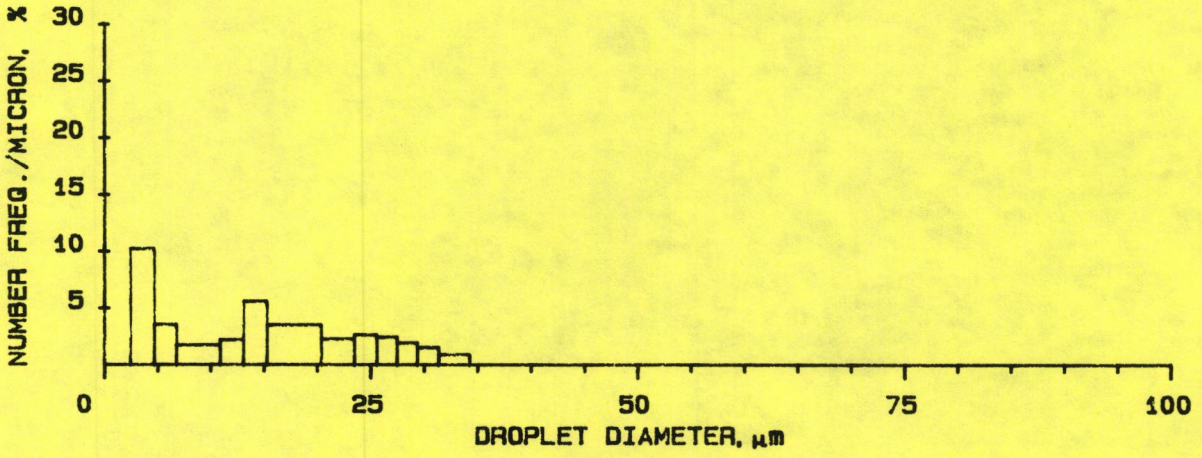
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 14.55 µm
$D_{N.9}$... 27.42 µm

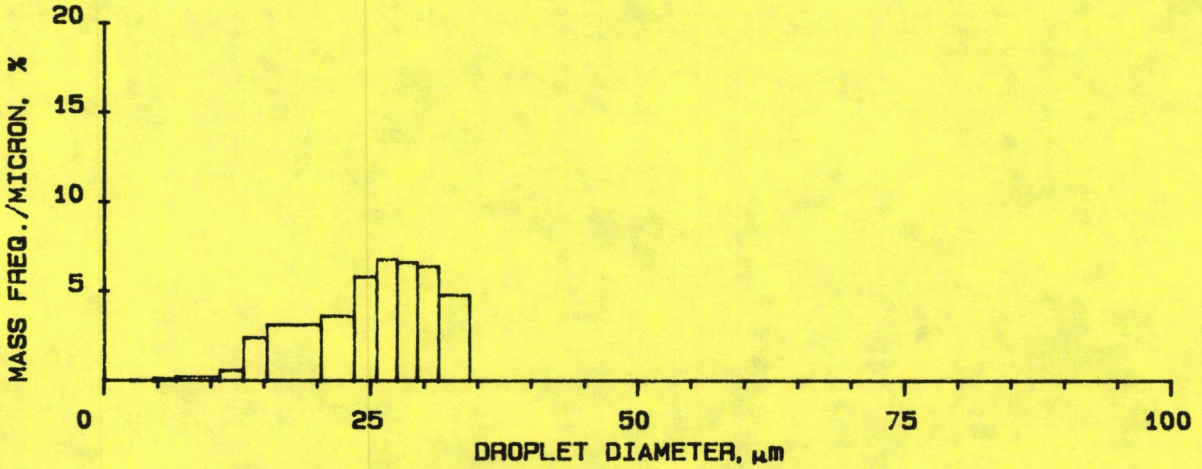
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.05 µm
$D_{V.5}$... 26.05 µm
$D_{V.9}$... 32.32 µm

RELATIVE SPAN= 0.62

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . . 2.35 gpm
Tank Mix: 10% SIM.AATREX 4L
90% WATER
FILE: C:\PMS\DATA\08058607.009







Nozzle	RD10 (D10-45)	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	46 cm.
Tank Mix	5% SIM.ESTERON 99C	Sample Interval	240 sec.
	95% WATER	Number of Samples	1
		Number of Scans	6
FILE: C:\PMS\DATA\080186.006		Scan Spacing	6 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	757	939977	0.03	34.45	0.03	34.45	0.03
89	1471	253419	0.05	9.29	0.04	43.74	0.07
122	1695	242990	0.15	8.91	0.13	52.65	0.20
154	1589	232191	0.32	8.51	0.28	61.16	0.48
187	1121	173493	0.45	6.36	0.39	67.52	0.87
220	777	126876	0.56	4.65	0.49	72.17	1.36
252	622	102528	0.70	3.76	0.61	75.92	1.97
284	533	89187	0.90	3.27	0.79	79.19	2.76
318	422	71448	1.03	2.62	0.90	81.81	3.66
351	360	59212	1.16	2.17	1.02	83.98	4.68
382	290	46730	1.19	1.71	1.05	85.69	5.73
414	277	46104	1.52	1.69	1.33	87.38	7.06
447	233	38296	1.60	1.40	1.40	88.79	8.46
479	211	34774	1.80	1.27	1.58	90.06	10.04
512	177	29935	1.90	1.10	1.67	91.16	11.71
545	118	19700	1.52	0.72	1.33	91.88	13.04
578	122	20309	1.88	0.74	1.65	92.63	14.69
611	117	19371	2.12	0.71	1.86	93.34	16.55
644	88	14905	1.92	0.55	1.69	93.88	18.24
677	81	14428	2.17	0.53	1.90	94.41	20.14
710	70	11882	2.07	0.44	1.82	94.85	21.95
743	80	14257	2.85	0.52	2.50	95.37	24.46
776	65	10838	2.48	0.40	2.18	95.77	26.63
809	54	9457	2.46	0.35	2.16	96.11	28.79
842	56	9529	2.80	0.35	2.46	96.46	31.25
875	45	7735	2.56	0.28	2.24	96.75	33.49
908	42	7780	2.88	0.29	2.53	97.03	36.01
941	29	5587	2.30	0.20	2.02	97.24	38.04
974	32	6037	2.77	0.22	2.43	97.46	40.47
1007	33	6753	3.43	0.25	3.01	97.70	43.47
1040	22	5260	2.95	0.19	2.58	97.90	46.06
1073	34	6639	4.09	0.24	3.59	98.14	49.65
1106	26	5809	3.92	0.21	3.44	98.35	53.09

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	23	5755	4.25	0.21	3.73	98.56	56.82
1172	20	4908	3.96	0.18	3.47	98.74	60.29
1205	21	4868	4.27	0.18	3.75	98.92	64.04
1238	20	4732	4.51	0.17	3.95	99.10	67.99
1271	10	2538	2.62	0.09	2.30	99.19	70.29
1304	9	2580	2.88	0.09	2.52	99.28	72.81
1337	13	3349	4.03	0.12	3.54	99.41	76.35
1370	9	2091	2.71	0.08	2.38	99.48	78.73
1403	10	3249	4.52	0.12	3.97	99.60	82.70
1436	13	3670	5.48	0.13	4.81	99.74	87.51
1469	3	980	1.57	0.04	1.38	99.77	88.89
1502	1	454	0.78	0.02	0.68	99.79	89.57
1535	2	1105	2.02	0.04	1.77	99.83	91.34
1568	5	1756	3.43	0.06	3.01	99.89	94.35
1601	2	654	1.36	0.02	1.19	99.92	95.54
1634	4	1309	2.89	0.05	2.54	99.97	98.08
1667	1	610	1.43	0.02	1.26	99.99	99.34
1700	1	302	0.75	0.01	0.66	100.00	100.00
TOTAL	1.18E+04	2.73E+06	113.95				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 11816/ 13463 = 87.8%

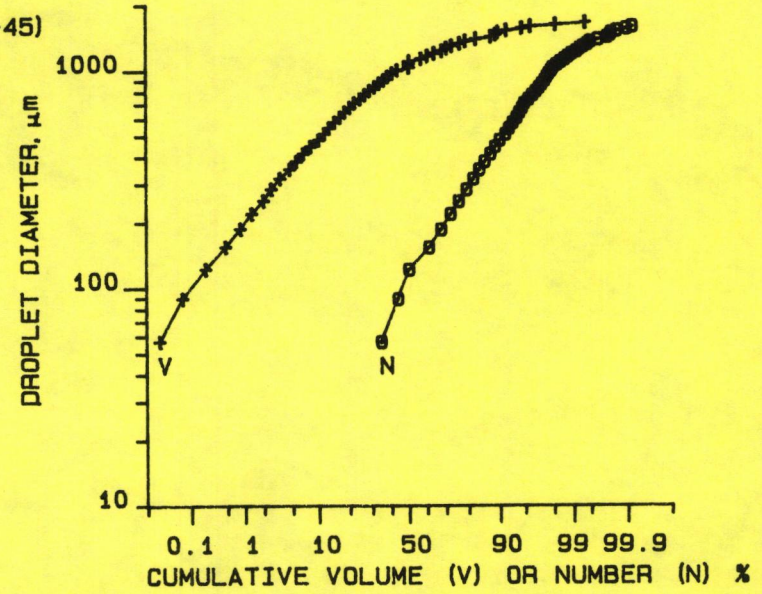
NUMBER MEAN DIA.= D_{10}.... 199.15 µm
VOLUME MEAN DIA.= D_{30}.... 430.63 µm
SAUTER MEAN DIA.= D_{32}.... 810.47 µm

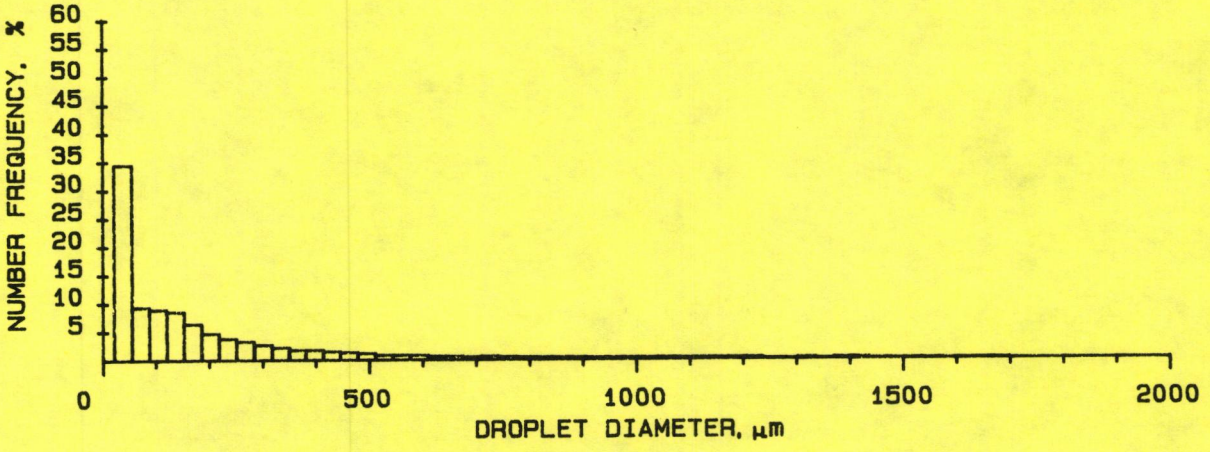
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... 112.13 µm
$D_{N.9}$... 478.17 µm

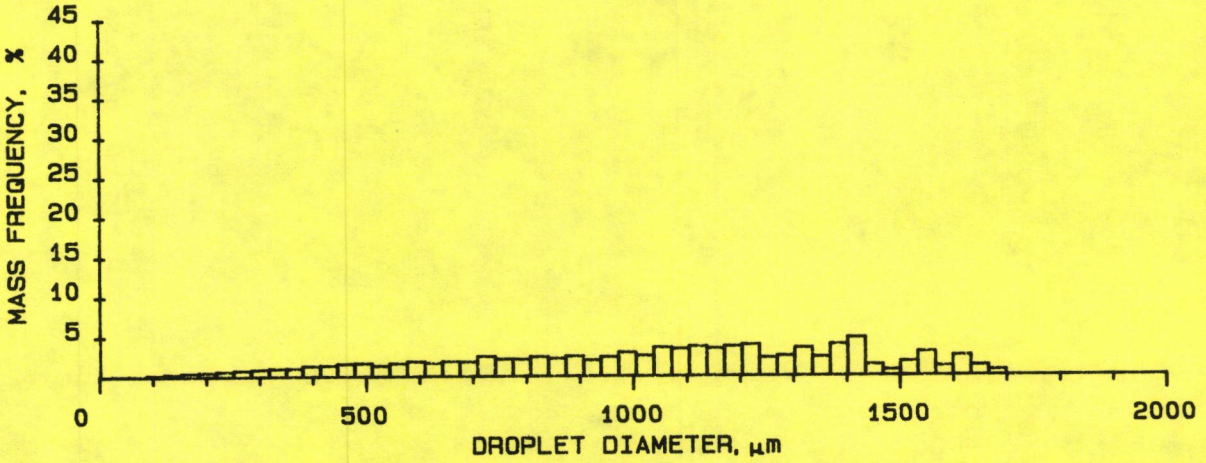
VOLUME MEDIAN DIA.= $D_{V.1}$... 478.97 µm
$D_{V.5}$...1075.89 µm
$D_{V.9}$...1509.52 µm

RELATIVE SPAN= 0.96

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 5% SIM.ESTERON 99C
95% WATER
FILE: C:\PMS\DATA\080186.006







Nozzle	D10-45	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	31 cm.
Tank Mix	5% SIM.ESTERON 99C	Sample Interval	300 sec.
	95% WATER	Number of Samples	1
		Number of Scans	8
FILE: C:\PMS\DATA\080186.005		Scan Spacing	5 cm.
Number of Tests Combined: 3		Scan Length	40 cm.

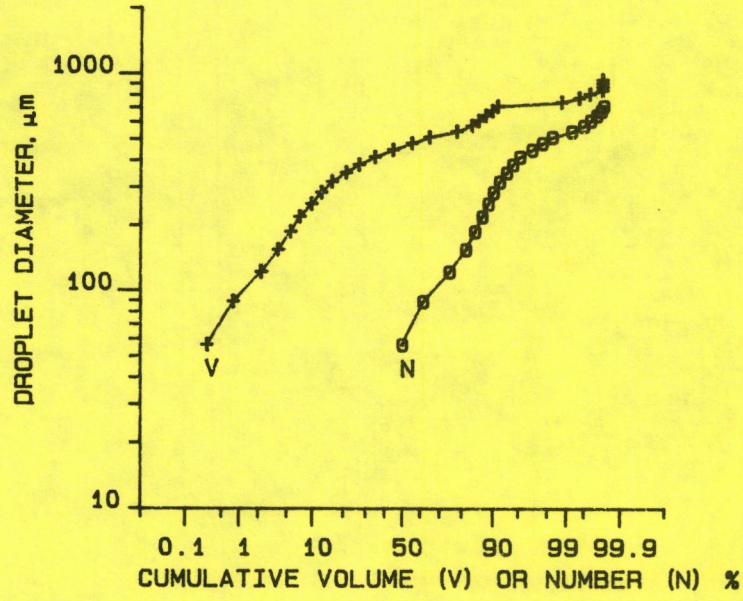
UPPER LIMIT	(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	7563	1.84E+07	0.61	47.59	0.30	47.59	0.30
89	9785	5.49E+06	1.09	14.15	0.54	61.74	0.83
122	10373	5.06E+06	3.07	13.05	1.51	74.79	2.34
154	8152	2.60E+06	3.56	6.71	1.75	81.50	4.09
187	5518	1.28E+06	3.30	3.29	1.62	84.79	5.72
220	3899	847322	3.71	2.19	1.82	86.97	7.54
252	2752	679191	4.63	1.75	2.28	88.72	9.81
284	1838	556295	5.59	1.43	2.75	90.16	12.56
318	1357	448922	6.45	1.16	3.17	91.32	15.73
351	1109	545466	10.67	1.41	5.24	92.72	20.98
382	840	452307	11.55	1.17	5.68	93.89	26.66
414	591	486663	16.02	1.26	7.88	95.15	34.53
447	457	483251	20.14	1.25	9.90	96.39	44.43
479	383	413716	21.45	1.07	10.54	97.46	54.98
512	276	308754	19.62	0.80	9.65	98.26	64.62
545	221	343695	26.46	0.89	13.01	99.14	77.63
578	156	129728	11.98	0.33	5.89	99.48	83.52
611	91	41387	4.54	0.11	2.23	99.58	85.75
644	81	33145	4.27	0.09	2.10	99.67	87.85
677	53	24576	3.70	0.06	1.82	99.73	89.67
710	26	13314	2.32	0.03	1.14	99.77	90.81
743	19	80434	16.10	0.21	7.91	99.98	98.72
776	12	5542	1.27	0.01	0.62	99.99	99.35
809	5	1763	0.46	0.00	0.23	99.99	99.57
842	2	1226	0.36	0.00	0.18	100.00	99.75
875	0	0	0.00	0.00	0.00	100.00	99.75
908	0	0	0.00	0.00	0.00	100.00	99.75
941	0	0	0.00	0.00	0.00	100.00	99.75
974	1	1121	0.51	0.00	0.25	100.00	100.00
TOTAL	5.36E+04	3.88E+07	203.41				

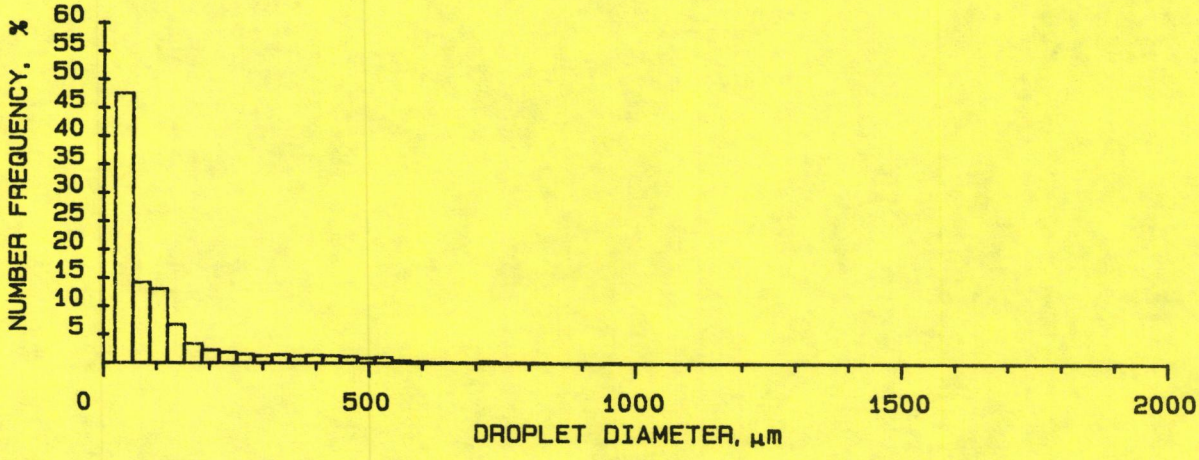
TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 53560/ 70457 = 76.0%

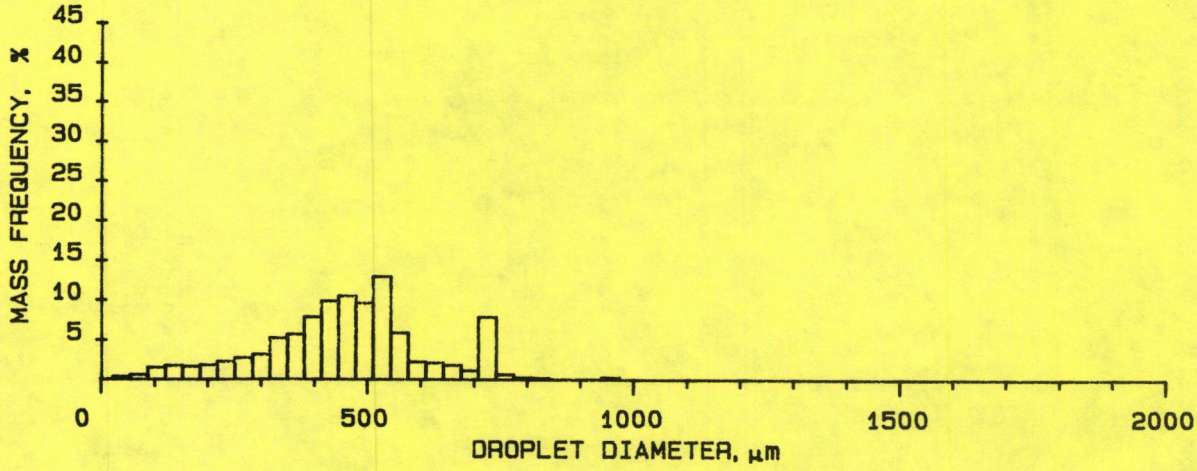
NUMBER MEAN DIA.=	D_{10}	111.94 µm
VOLUME MEAN DIA.=	D_{30}	215.68 µm
SAUTER MEAN DIA.=	D_{32}	375.50 µm
	$D_{N.1}$	<56 µm
NUMBER MEDIAN DIA.=	$D_{N.5}$	61.90 µm
	$D_{N.9}$	281.14 µm
	$D_{V.1}$	254.03 µm
VOLUME MEDIAN DIA.=	$D_{V.5}$	464.22 µm
	$D_{V.9}$	686.09 µm

RELATIVE SPAN= 0.93

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 5% SIM.ESTERON 99C
95% WATER
FILE: C:\PMS\DATA\080186.005







Nozzle	D10 JET	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	2.35 gpm	Distance to Probe	198 cm.
Tank Mix	5% SIM.ESTERON 99C	Sample Interval	300 sec.
	95% WATER	Number of Samples	1
		Number of Scans	12
FILE: C:\PMS\DATA\080586.008		Scan Spacing	1.66 cm.
Number of Tests Combined: 2		Scan Length	35 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	3837	2.72E+06	0.09	61.65	0.07	61.65	0.07
89	5284	491210	0.10	11.13	0.08	72.78	0.15
122	4345	338495	0.21	7.67	0.17	80.45	0.32
154	3090	252316	0.35	5.72	0.28	86.17	0.60
187	1511	127344	0.33	2.89	0.27	89.06	0.86
220	792	70611	0.31	1.60	0.25	90.66	1.11
252	572	48841	0.33	1.11	0.27	91.76	1.38
284	418	34385	0.35	0.78	0.28	92.54	1.66
318	394	32614	0.47	0.74	0.38	93.28	2.04
351	345	26803	0.52	0.61	0.42	93.89	2.47
382	284	21556	0.55	0.49	0.45	94.38	2.91
414	254	18855	0.62	0.43	0.50	94.81	3.42
447	222	15561	0.65	0.35	0.53	95.16	3.94
479	195	14079	0.73	0.32	0.59	95.48	4.53
512	192	14094	0.90	0.32	0.73	95.80	5.26
545	174	13684	1.05	0.31	0.85	96.11	6.11
578	155	12632	1.17	0.29	0.94	96.39	7.06
611	122	9999	1.10	0.23	0.89	96.62	7.94
644	127	9184	1.18	0.21	0.96	96.83	8.90
677	113	9654	1.45	0.22	1.18	97.05	10.08
710	99	8055	1.40	0.18	1.14	97.23	11.21
743	103	9002	1.80	0.20	1.46	97.43	12.67
776	86	7218	1.65	0.16	1.34	97.60	14.01
809	93	7443	1.93	0.17	1.57	97.77	15.57
842	68	6004	1.76	0.14	1.43	97.90	17.00
875	77	7846	2.59	0.18	2.10	98.08	19.10
908	61	5887	2.18	0.13	1.76	98.21	20.86
941	64	7251	2.99	0.16	2.42	98.38	23.29
974	40	3994	1.83	0.09	1.48	98.47	24.77
1007	42	4230	2.15	0.10	1.74	98.56	26.51
1040	53	7736	4.33	0.18	3.51	98.74	30.02
1073	33	5523	3.40	0.13	2.75	98.86	32.77
1106	42	5037	3.40	0.11	2.75	98.98	35.52

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	23	3064	2.26	0.07	1.83	99.05	37.36
1172	19	3145	2.53	0.07	2.05	99.12	39.41
1205	17	2354	2.06	0.05	1.67	99.17	41.08
1238	14	1698	1.62	0.04	1.31	99.21	42.39
1271	22	3772	3.89	0.09	3.15	99.30	45.54
1304	10	1530	1.71	0.03	1.38	99.33	46.92
1337	12	3128	3.76	0.07	3.05	99.40	49.97
1370	9	1418	1.84	0.03	1.49	99.43	51.46
1403	12	1646	2.29	0.04	1.86	99.47	53.31
1436	10	2245	3.35	0.05	2.72	99.52	56.03
1469	9	2070	3.31	0.05	2.68	99.57	58.71
1502	10	2476	4.24	0.06	3.43	99.62	62.15
1535	6	1491	2.73	0.03	2.21	99.66	64.36
1568	7	2277	4.44	0.05	3.60	99.71	67.95
1601	5	1032	2.14	0.02	1.74	99.73	69.69
1634	5	1172	2.59	0.03	2.10	99.76	71.79
1667	2	1397	3.28	0.03	2.66	99.79	74.45
1700	4	1349	3.36	0.03	2.72	99.82	77.17
1733	2	544	1.44	0.01	1.16	99.83	78.33
1766	1	230	0.64	0.01	0.52	99.84	78.86
1799	2	726	2.15	0.02	1.74	99.86	80.59
1832	1	477	1.49	0.01	1.21	99.87	81.80
1865	0	0	0.00	0.00	0.00	99.87	81.80
1898	2	2464	8.58	0.06	6.94	99.92	88.75
1931	1	338	1.24	0.01	1.00	99.93	89.75
1964	1	495	1.91	0.01	1.55	99.94	91.29
1997	2	1069	4.34	0.02	3.52	99.97	94.81
2030	1	1502	6.41	0.03	5.19	100.00	100.00
TOTAL	2.35E+04	4.41E+06	123.49				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 23496/ 29582 = 79.4%

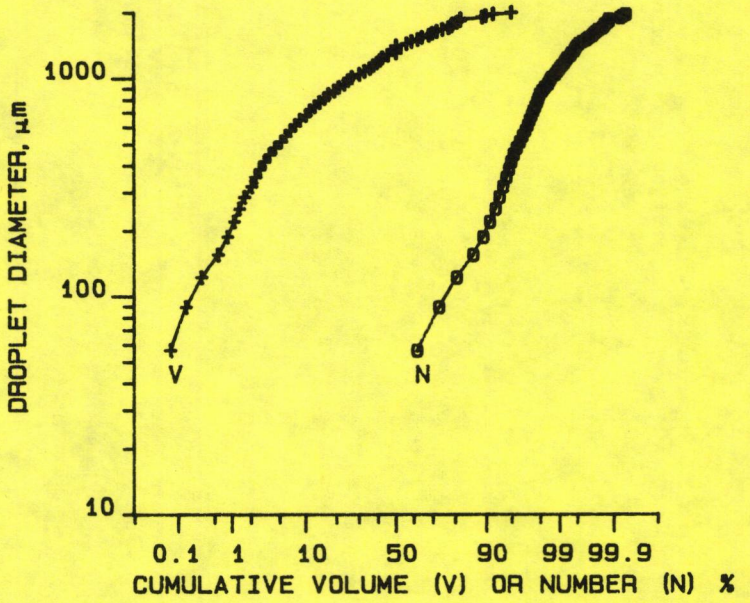
NUMBER MEAN DIA.= D_{10}.... 112.77 µm
VOLUME MEAN DIA.= D_{30}.... 376.83 µm
SAUTER MEAN DIA.= D_{32}....1017.26 µm

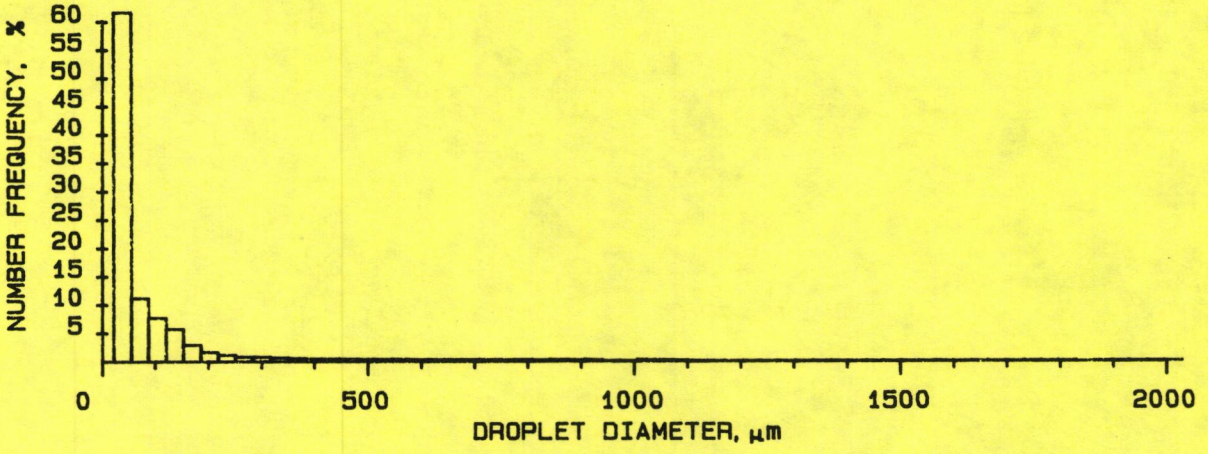
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... <56 µm
$D_{N.9}$... 206.36 µm

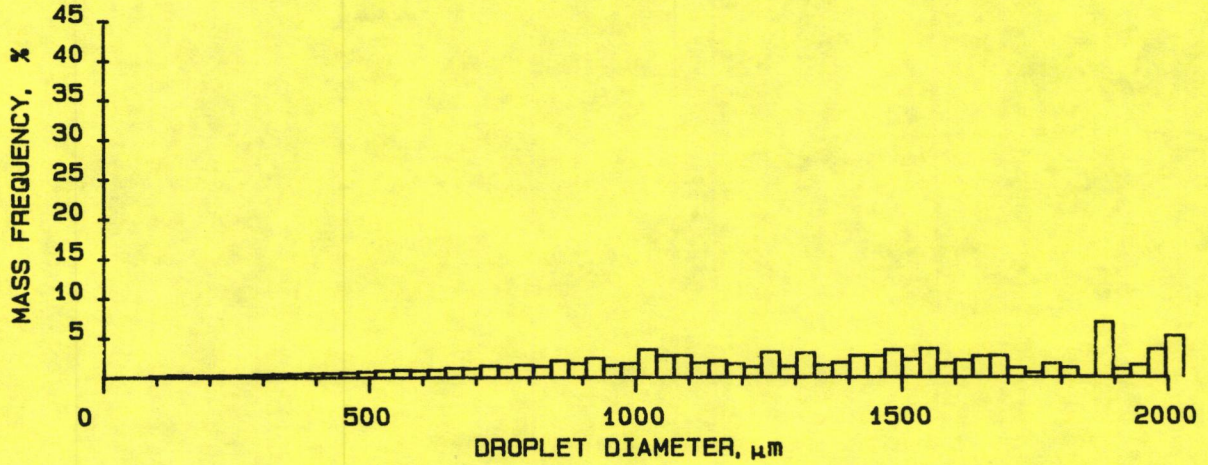
VOLUME MEDIAN DIA.= $D_{V.1}$... 674.33 µm
$D_{V.5}$...1337.18 µm
$D_{V.9}$...1935.87 µm

RELATIVE SPAN= 0.94

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 2.35
Tank Mix: 5% SIM.ESTERON 99C
95% WATER
FILE: C:\PMS\DATA\080586.008







Nozzle	RD10 (D10-45)	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	46 cm.
Tank Mix	10% SIM. VELPAR	Sample Interval	240 sec.
	90% WATER	Number of Samples	1
		Number of Scans	6
FILE: C:\PMS\DATA\073186.002		Scan Spacing	6 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	1167	5.68E+06	0.19	50.30	0.10	50.30	0.10
89	2061	1.35E+06	0.27	11.93	0.14	62.23	0.24
122	2097	1.04E+06	0.63	9.24	0.33	71.48	0.57
154	1787	799369	1.09	7.08	0.57	78.56	1.13
187	1180	502955	1.30	4.45	0.68	83.01	1.81
220	880	349427	1.53	3.09	0.79	86.11	2.60
252	632	252216	1.72	2.23	0.89	88.34	3.49
284	524	203262	2.04	1.80	1.06	90.14	4.55
318	457	168881	2.43	1.50	1.26	91.64	5.82
351	386	133420	2.61	1.18	1.35	92.82	7.17
382	345	115993	2.96	1.03	1.54	93.84	8.71
414	269	86014	2.83	0.76	1.47	94.61	10.18
447	270	92555	3.86	0.82	2.00	95.43	12.18
479	220	67502	3.50	0.60	1.82	96.02	14.00
512	182	51371	3.26	0.45	1.69	96.48	15.69
545	150	40473	3.12	0.36	1.62	96.84	17.31
578	113	35076	3.24	0.31	1.68	97.15	18.99
611	102	30582	3.35	0.27	1.74	97.42	20.73
644	93	24574	3.17	0.22	1.64	97.64	22.38
677	88	24237	3.64	0.21	1.89	97.85	24.27
710	59	22653	3.94	0.20	2.05	98.05	26.32
743	63	18140	3.63	0.16	1.88	98.21	28.20
776	59	18737	4.28	0.17	2.22	98.38	30.43
809	42	12317	3.20	0.11	1.66	98.49	32.09
842	38	12780	3.75	0.11	1.95	98.60	34.04
875	48	16884	5.58	0.15	2.90	98.75	36.93
908	50	12837	4.75	0.11	2.47	98.86	39.40
941	33	9833	4.06	0.09	2.11	98.95	41.50
974	28	8766	4.02	0.08	2.09	99.03	43.59
1007	31	10282	5.22	0.09	2.71	99.12	46.30
1040	37	12242	6.85	0.11	3.56	99.23	49.86
1073	24	9349	5.76	0.08	2.99	99.31	52.85
1106	30	9094	6.14	0.08	3.19	99.39	56.04

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	30	8962	6.62	0.08	3.44	99.47	59.47
1172	17	6468	5.21	0.06	2.71	99.53	62.18
1205	16	6101	5.35	0.05	2.78	99.58	64.96
1238	11	4718	4.49	0.04	2.33	99.62	67.29
1271	7	2326	2.40	0.02	1.25	99.64	68.54
1304	15	8064	8.99	0.07	4.67	99.71	73.20
1337	6	2990	3.60	0.03	1.87	99.74	75.07
1370	9	2568	3.33	0.02	1.73	99.76	76.80
1403	13	5436	7.57	0.05	3.93	99.81	80.73
1436	11	5545	8.29	0.05	4.30	99.86	85.03
1469	8	4445	7.12	0.04	3.69	99.90	88.73
1502	2	1286	2.20	0.01	1.14	99.91	89.87
1535	7	3760	6.88	0.03	3.57	99.95	93.44
1568	5	3309	6.46	0.03	3.35	99.97	96.79
1601	4	2233	4.64	0.02	2.41	99.99	99.20
1634	0	0	0.00	0.00	0.00	99.99	99.20
1667	0	0	0.00	0.00	0.00	99.99	99.20
1700	1	616	1.54	0.01	0.80	100.00	100.00
TOTAL	1.37E+04	1.13E+07	192.60				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 13707/ 16488 = 83.1%

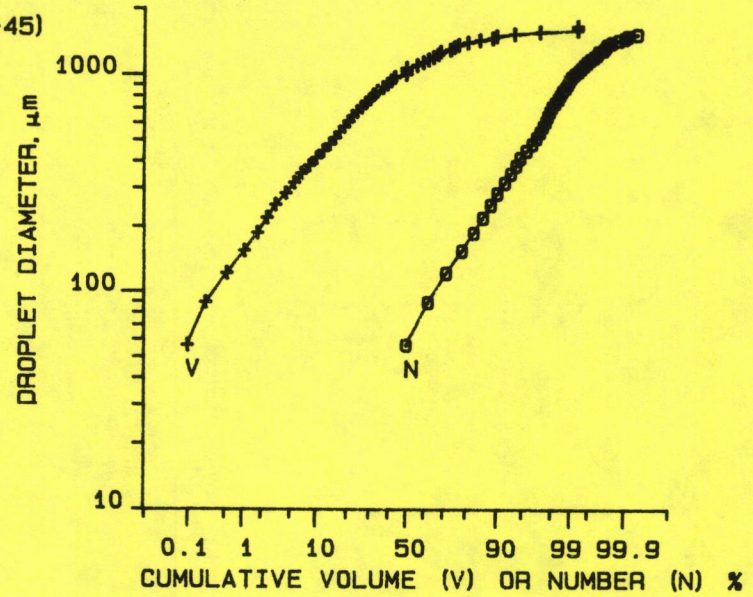
NUMBER MEAN DIA.= D_{10}.... 125.11 µm
VOLUME MEAN DIA.= D_{30}.... 319.49 µm
SAUTER MEAN DIA.= D_{32}.... 724.48 µm

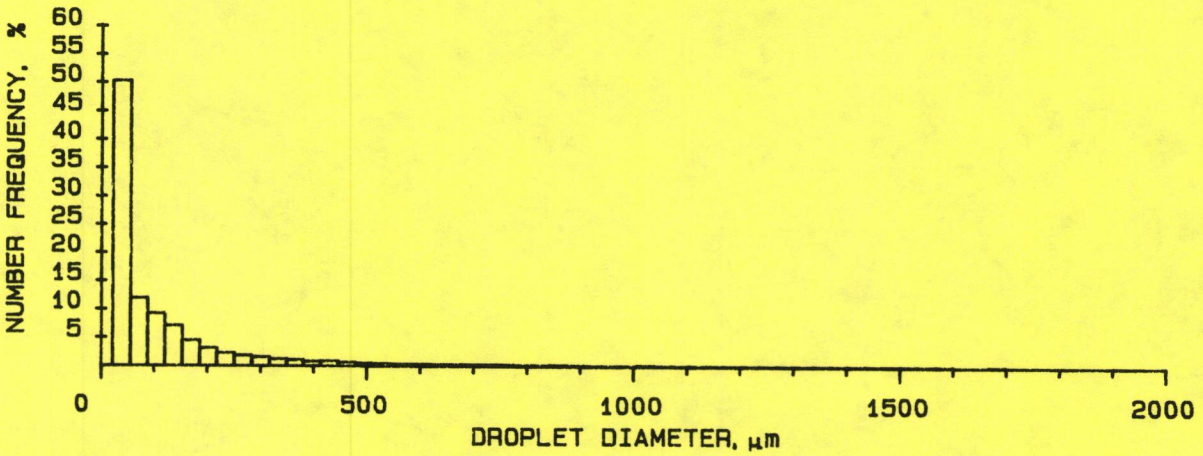
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... <56 µm
$D_{N.9}$... 282.23 µm

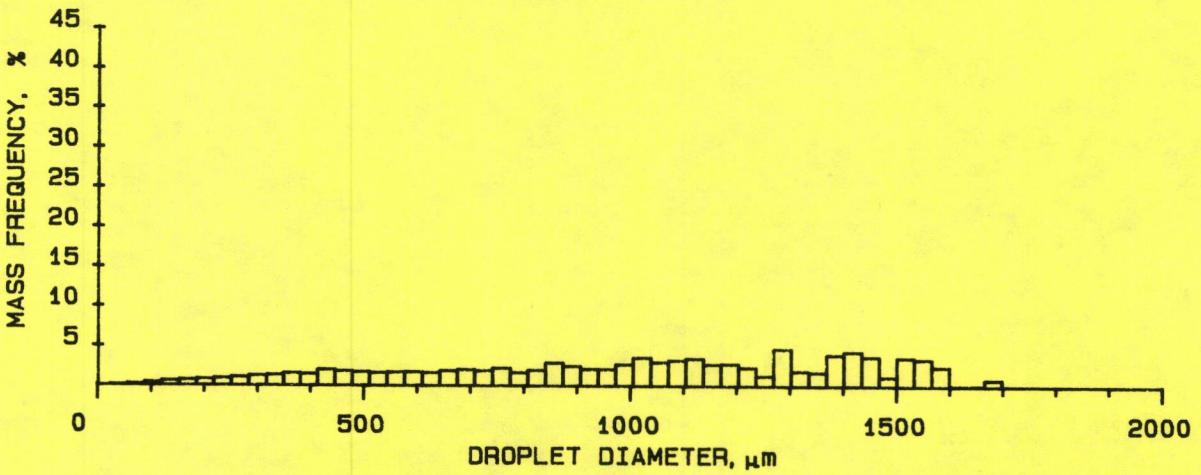
VOLUME MEDIAN DIA.= $D_{V.1}$... 410.99 µm
$D_{V.5}$...1041.06 µm
$D_{V.9}$...1502.71 µm

RELATIVE SPAN= 1.05

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 10% SIM. VELPAR
90% WATER
FILE: C:\PMS\DATA\073186.002







Nozzle	D10-45	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	31 cm.
Tank Mix	10% SIM. VELPAR	Sample Interval	300 sec.
	90% WATER	Number of Samples	1
		Number of Scans	8
FILE: C:\PMS\DATA\073186.001		Scan Spacing	5 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	4303	2.32E+07	0.76	52.22	0.68	52.22	0.68
89	7170	6.06E+06	1.20	13.63	1.08	65.86	1.76
122	6726	5.02E+06	3.05	11.28	2.72	77.14	4.48
154	4692	3.39E+06	4.65	7.64	4.15	84.78	8.64
187	2730	1.89E+06	4.88	4.25	4.37	89.02	13.01
220	1839	1.23E+06	5.39	2.77	4.82	91.79	17.82
252	1285	823666	5.61	1.85	5.02	93.65	22.84
284	1029	642736	6.46	1.45	5.77	95.09	28.62
318	925	552496	7.94	1.24	7.10	96.33	35.72
351	764	431720	8.44	0.97	7.55	97.31	43.27
382	643	360570	9.21	0.81	8.24	98.12	51.51
414	452	217742	7.17	0.49	6.41	98.61	57.92
447	357	174028	7.25	0.39	6.49	99.00	64.41
479	272	114986	5.96	0.26	5.33	99.26	69.74
512	221	99370	6.31	0.22	5.65	99.48	75.39
545	166	68528	5.28	0.15	4.72	99.63	80.11
578	109	50131	4.63	0.11	4.14	99.75	84.25
611	76	36118	3.96	0.08	3.54	99.83	87.79
644	55	28694	3.70	0.06	3.31	99.89	91.09
677	31	16333	2.46	0.04	2.20	99.93	93.29
710	23	10850	1.89	0.02	1.69	99.95	94.98
743	13	7507	1.50	0.02	1.34	99.97	96.32
776	6	1990	0.45	0.00	0.41	99.98	96.73
809	4	3757	0.98	0.01	0.87	99.98	97.60
842	4	3278	0.96	0.01	0.86	99.99	98.47
875	1	473	0.16	0.00	0.14	99.99	98.60
908	0	0	0.00	0.00	0.00	99.99	98.60
941	0	0	0.00	0.00	0.00	99.99	98.60
974	2	3403	1.56	0.01	1.40	100.00	100.00
TOTAL	3.39E+04	4.44E+07	111.81				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 33898/ 45732 = 74.1%

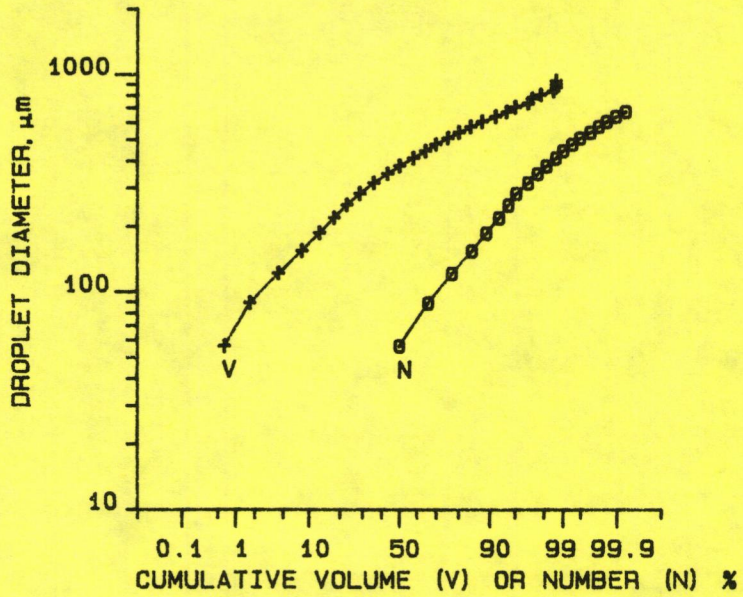
NUMBER MEAN DIA.=	D_{10}	93.13 µm
VOLUME MEAN DIA.=	D_{30}	168.80 µm
SAUTER MEAN DIA.=	D_{32}	291.87 µm

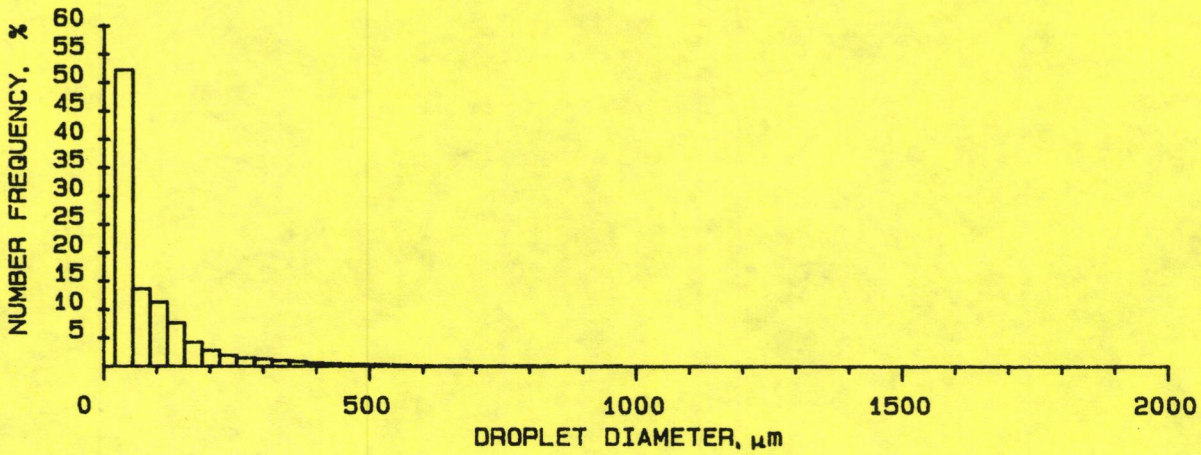
	$D_{N.1}$	<56 µm
NUMBER MEDIAN DIA.=	$D_{N.5}$	<56 µm
	$D_{N.9}$	198.55 µm

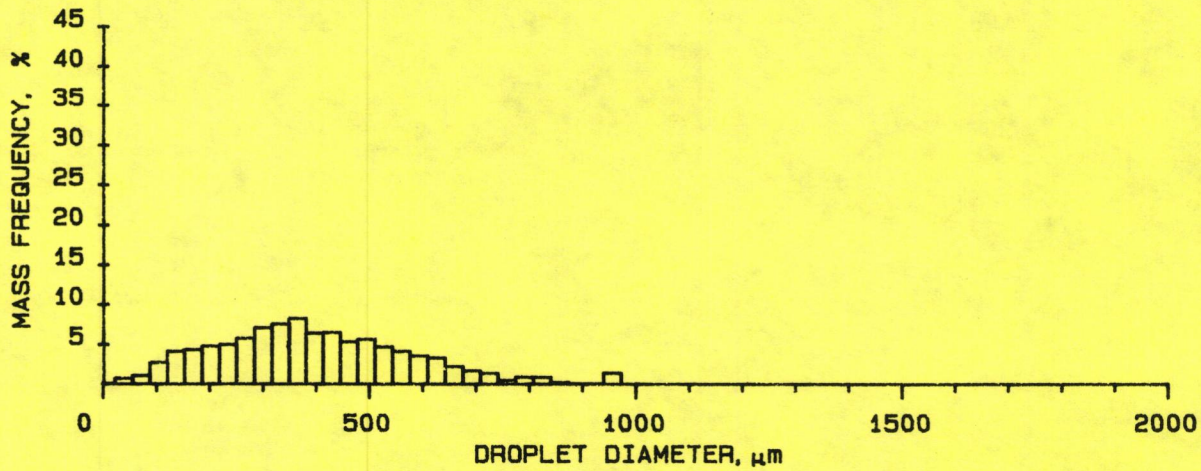
	$D_{V.1}$	164.58 µm
VOLUME MEDIAN DIA.=	$D_{V.5}$	377.85 µm
	$D_{V.9}$	632.58 µm

RELATIVE SPAN= 1.24

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 10% SIM. VELPAR
90% WATER
FILE: C:\PMS\DATA\073186.001







Nozzle	D10 JET	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	2.35 gpm	Distance to Probe	198 cm.
Tank Mix	10% SIM. VELPAR	Sample Interval	300 sec.
	90% WATER	Number of Samples	1
		Number of Scans	12
FILE: C:\PMS\DATA\080586.009		Scan Spacing	1.66 cm.
Number of Tests Combined: 2		Scan Length	35 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	3779	3.53E+06	0.12	60.46	0.07	60.46	0.07
89	4687	599566	0.12	10.27	0.07	70.72	0.15
122	3725	408500	0.25	6.99	0.16	77.71	0.30
154	2879	321299	0.44	5.50	0.28	83.22	0.58
187	1491	170118	0.44	2.91	0.28	86.13	0.85
220	1005	109818	0.48	1.88	0.30	88.01	1.15
252	826	83275	0.57	1.43	0.36	89.43	1.51
284	698	69133	0.69	1.18	0.43	90.62	1.94
318	570	53536	0.77	0.92	0.48	91.53	2.42
351	544	47738	0.93	0.82	0.58	92.35	3.01
382	493	43316	1.11	0.74	0.69	93.09	3.70
414	421	38779	1.28	0.66	0.80	93.76	4.50
447	330	29687	1.24	0.51	0.77	94.27	5.27
479	293	27422	1.42	0.47	0.89	94.73	6.16
512	291	25397	1.61	0.43	1.01	95.17	7.17
545	250	23287	1.79	0.40	1.12	95.57	8.29
578	238	22332	2.06	0.38	1.29	95.95	9.59
611	223	19445	2.13	0.33	1.33	96.28	10.92
644	182	20286	2.62	0.35	1.64	96.63	12.56
677	143	15507	2.33	0.27	1.46	96.90	14.01
710	128	12999	2.26	0.22	1.42	97.12	15.43
743	115	11331	2.27	0.19	1.42	97.31	16.85
776	115	15373	3.52	0.26	2.20	97.58	19.05
809	105	13810	3.59	0.24	2.25	97.81	21.29
842	90	11893	3.49	0.20	2.19	98.02	23.48
875	76	10414	3.44	0.18	2.15	98.19	25.63
908	62	8213	3.04	0.14	1.90	98.33	27.53
941	53	6584	2.72	0.11	1.70	98.45	29.23
974	56	8590	3.94	0.15	2.46	98.59	31.70
1007	60	9152	4.64	0.16	2.91	98.75	34.60
1040	38	5553	3.11	0.10	1.95	98.85	36.55
1073	29	5126	3.16	0.09	1.98	98.93	38.52
1106	30	3925	2.65	0.07	1.66	99.00	40.18

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	21	3363	2.48	0.06	1.55	99.06	41.74
1172	28	4134	3.33	0.07	2.08	99.13	43.82
1205	15	3154	2.77	0.05	1.73	99.18	45.55
1238	22	5368	5.11	0.09	3.20	99.28	48.75
1271	17	4381	4.52	0.07	2.83	99.35	51.58
1304	17	3227	3.60	0.06	2.25	99.41	53.83
1337	14	3433	4.13	0.06	2.58	99.46	56.41
1370	5	765	0.99	0.01	0.62	99.48	57.03
1403	13	3869	5.39	0.07	3.37	99.54	60.40
1436	9	2458	3.67	0.04	2.30	99.59	62.70
1469	11	2187	3.50	0.04	2.19	99.62	64.89
1502	5	1710	2.93	0.03	1.83	99.65	66.72
1535	4	1808	3.31	0.03	2.07	99.68	68.79
1568	3	1455	2.84	0.02	1.78	99.71	70.57
1601	8	3600	7.48	0.06	4.68	99.77	75.25
1634	3	661	1.46	0.01	0.91	99.78	76.17
1667	4	1584	3.72	0.03	2.33	99.81	78.50
1700	4	1356	3.38	0.02	2.12	99.83	80.61
1733	3	1876	4.96	0.03	3.10	99.86	83.71
1766	2	723	2.02	0.01	1.27	99.88	84.98
1799	3	1189	3.52	0.02	2.20	99.90	87.18
1832	1	2031	6.35	0.03	3.97	99.93	91.15
1865	3	2300	7.59	0.04	4.75	99.97	95.91
1898	1	324	1.13	0.01	0.71	99.98	96.61
1931	1	380	1.39	0.01	0.87	99.98	97.48
1964	0	0	0.00	0.00	0.00	99.98	97.48
1997	1	991	4.02	0.02	2.52	100.00	100.00
TOTAL	2.42E+04	5.84E+06	159.82				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 24243/ 30422 = 79.7%

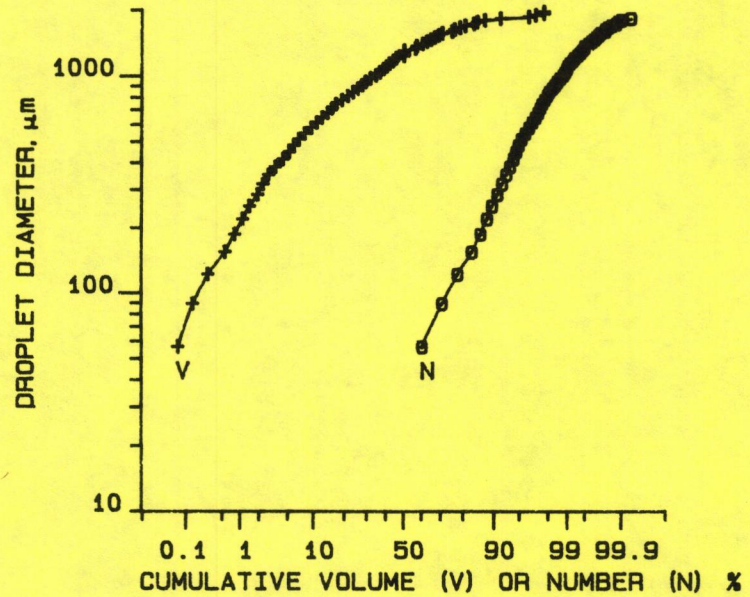
NUMBER MEAN DIA.= D_{10}.... 121.39 µm
VOLUME MEAN DIA.= D_{30}.... 374.01 µm
SAUTER MEAN DIA.= D_{32}.... 938.73 µm

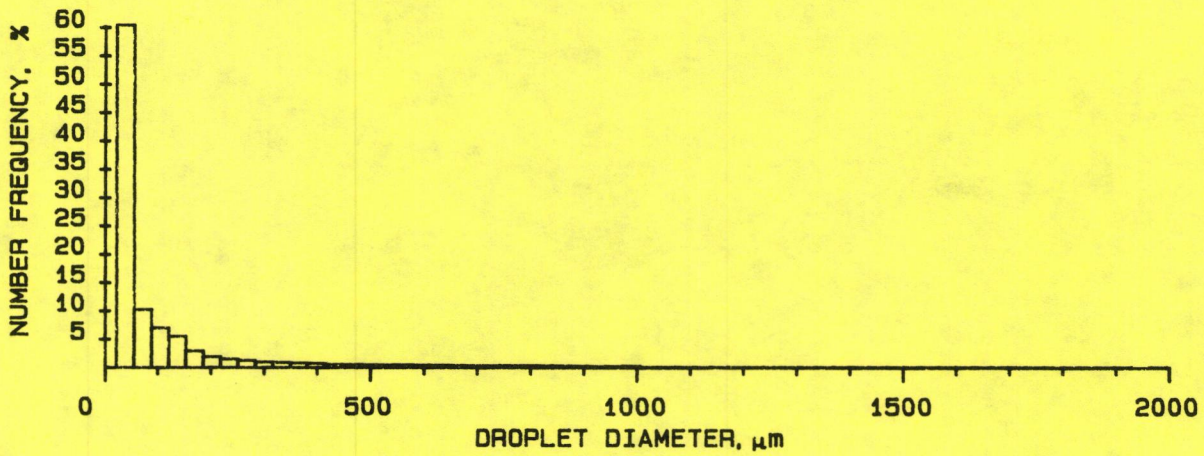
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... <56 µm
$D_{N.9}$... 267.59 µm

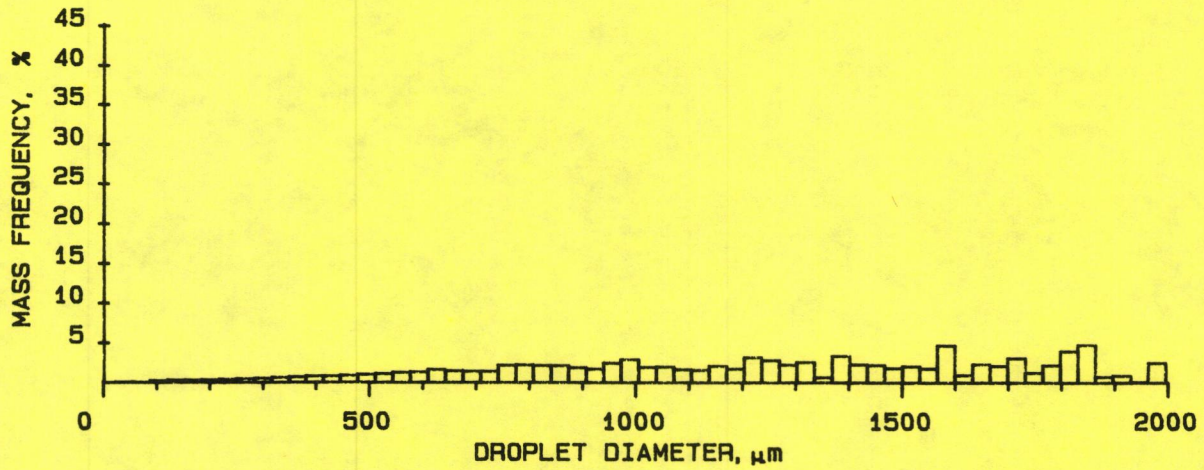
VOLUME MEDIAN DIA.= $D_{V.1}$... 587.76 µm
$D_{V.5}$...1252.11 µm
$D_{V.9}$...1821.91 µm

RELATIVE SPAN= 0.99

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 2.35
Tank Mix: 10% SIM. VELPAR
90% WATER
FILE: C:\PMS\DATA\080586.009







Nozzle	RD10 (D10-45)	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	46 cm.
Tank Mix	10% SIM. AATREX	Sample Interval	240 sec.
	90% WATER	Number of Samples	1
		Number of Scans	6
FILE: C:\PMS\DATA\073186.003		Scan Spacing	6 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	915	1.37E+06	0.04	38.80	0.03	38.80	0.03
89	1687	344758	0.07	9.80	0.04	48.60	0.07
122	1788	312738	0.19	8.89	0.12	57.49	0.19
154	1670	297865	0.41	8.47	0.25	65.95	0.44
187	1019	186900	0.48	5.31	0.30	71.27	0.75
220	689	134302	0.59	3.82	0.37	75.08	1.11
252	575	116678	0.79	3.32	0.50	78.40	1.61
284	465	94404	0.95	2.68	0.59	81.08	2.20
318	431	88324	1.27	2.51	0.79	83.59	2.99
351	315	62793	1.23	1.78	0.77	85.38	3.76
382	305	61365	1.57	1.74	0.98	87.12	4.74
414	255	48803	1.61	1.39	1.00	88.51	5.74
447	222	44508	1.85	1.26	1.16	89.77	6.90
479	205	41007	2.13	1.17	1.33	90.94	8.23
512	171	32853	2.09	0.93	1.30	91.87	9.53
545	122	23541	1.81	0.67	1.13	92.54	10.67
578	113	21731	2.01	0.62	1.25	93.16	11.92
611	102	19855	2.18	0.56	1.36	93.72	13.28
644	81	16703	2.15	0.47	1.34	94.20	14.62
677	80	16435	2.47	0.47	1.54	94.66	16.17
710	56	11782	2.05	0.33	1.28	95.00	17.45
743	58	11787	2.36	0.33	1.47	95.33	18.92
776	59	12185	2.79	0.35	1.74	95.68	20.66
809	47	10254	2.66	0.29	1.66	95.97	22.32
842	59	13472	3.96	0.38	2.47	96.36	24.80
875	38	8399	2.77	0.24	1.73	96.59	26.53
908	39	9002	3.33	0.26	2.08	96.85	28.61
941	41	9741	4.02	0.28	2.51	97.13	31.12
974	26	6193	2.84	0.18	1.77	97.30	32.89
1007	36	9144	4.64	0.26	2.90	97.56	35.79
1040	18	3868	2.17	0.11	1.35	97.67	37.14
1073	20	5233	3.22	0.15	2.01	97.82	39.15
1106	34	8034	5.43	0.23	3.39	98.05	42.54

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	17	4562	3.37	0.13	2.10	98.18	44.65
1172	24	6705	5.40	0.19	3.37	98.37	48.02
1205	28	8470	7.43	0.24	4.64	98.61	52.66
1238	17	4892	4.66	0.14	2.91	98.75	55.57
1271	13	4376	4.51	0.12	2.82	98.87	58.39
1304	16	4662	5.20	0.13	3.25	99.01	61.64
1337	11	3711	4.46	0.11	2.79	99.11	64.42
1370	12	4211	5.45	0.12	3.41	99.23	67.83
1403	21	6891	9.60	0.20	5.99	99.43	73.82
1436	7	2567	3.84	0.07	2.40	99.50	76.22
1469	8	3220	5.16	0.09	3.22	99.59	79.44
1502	6	2980	5.10	0.08	3.19	99.68	82.63
1535	3	1135	2.08	0.03	1.30	99.71	83.92
1568	2	872	1.70	0.02	1.06	99.73	84.99
1601	3	1642	3.41	0.05	2.13	99.78	87.12
1634	3	1481	3.27	0.04	2.05	99.82	89.16
1667	4	1935	4.55	0.06	2.84	99.88	92.00
1700	1	452	1.13	0.01	0.70	99.89	92.71
1733	1	782	2.07	0.02	1.29	99.91	94.00
1766	2	1199	3.35	0.03	2.09	99.95	96.09
1799	0	0	0.00	0.00	0.00	99.95	96.09
1832	0	0	0.00	0.00	0.00	99.95	96.09
1865	2	1896	6.26	0.05	3.91	100.00	100.00
TOTAL	1.19E+04	3.52E+06	160.12				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 11942/ 13900 = 85.9%

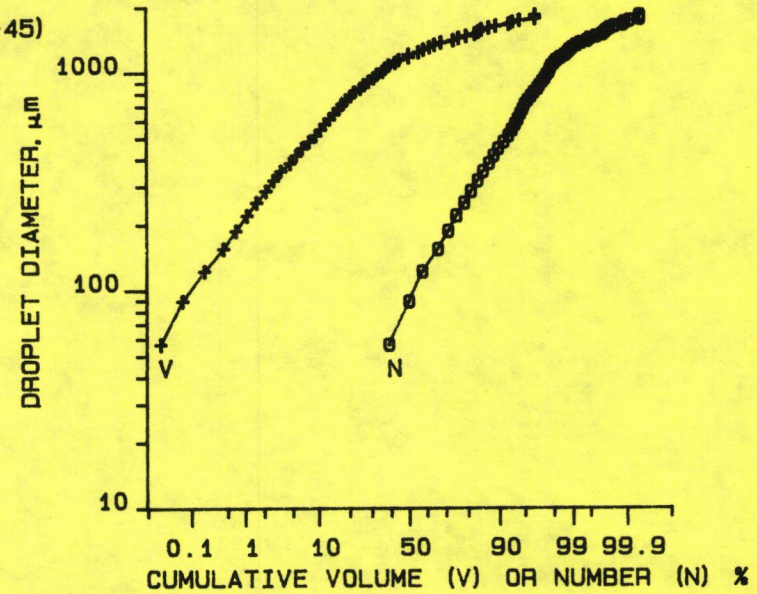
NUMBER MEAN DIA.= D_{10}.... 188.01 µm
VOLUME MEAN DIA.= D_{30}.... 443.12 µm
SAUTER MEAN DIA.= D_{32}.... 890.39 µm

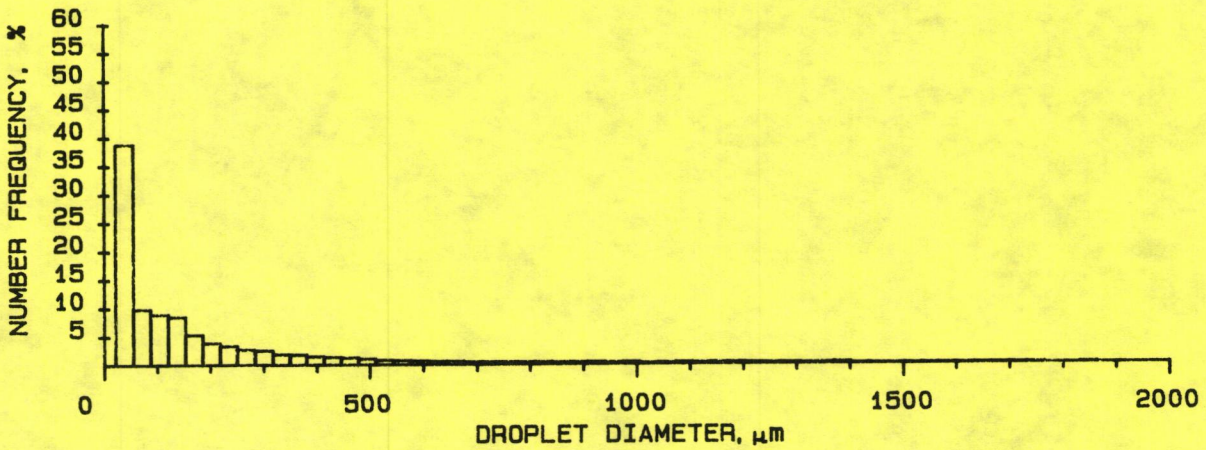
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... 94.13 µm
$D_{N.9}$... 453.23 µm

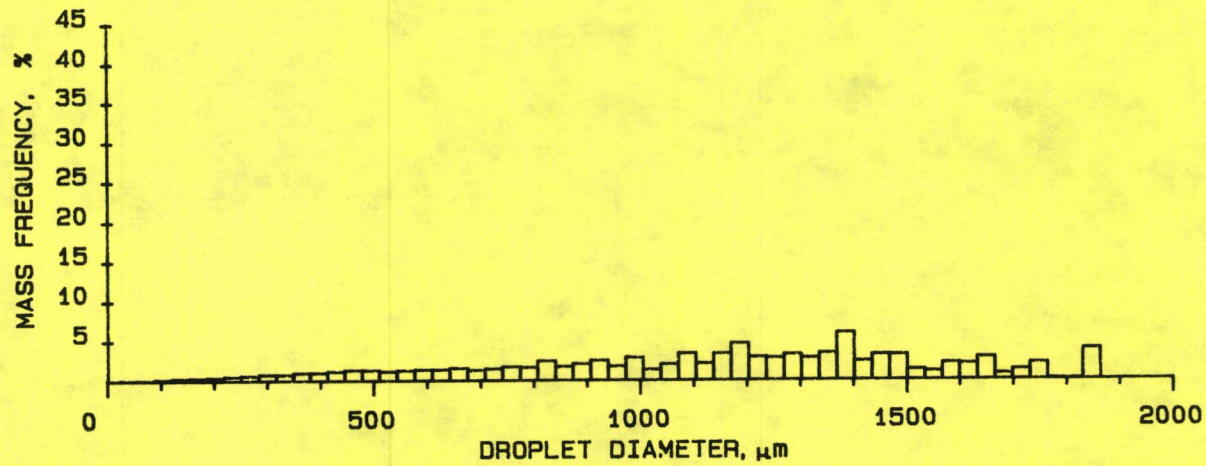
VOLUME MEDIAN DIA.= $D_{V.1}$... 525.39 µm
$D_{V.5}$...1185.56 µm
$D_{V.9}$...1643.23 µm

RELATIVE SPAN= 0.94

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0 °
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 10% SIM. AATREX
90% WATER
FILE: C: \PMS\DATA\073186.003







Nozzle	D10-45	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	31 cm.
Tank Mix	10% SIM. AATREX	Sample Interval	300 sec.
	90% WATER	Number of Samples	1
		Number of Scans	8
FILE: C:\PMS\DATA\073186.004		Scan Spacing	5 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	4103	1.42E+07	0.47	52.30	0.42	52.30	0.42
89	6484	3.37E+06	0.67	12.36	0.60	64.66	1.03
122	6904	2.89E+06	1.75	10.60	1.58	75.26	2.61
154	4610	1.86E+06	2.55	6.84	2.30	82.09	4.92
187	2525	1.03E+06	2.67	3.79	2.42	85.88	7.33
220	1678	801251	3.51	2.94	3.17	88.83	10.50
252	1098	583413	3.98	2.14	3.59	90.97	14.10
284	812	499312	5.02	1.83	4.53	92.80	18.63
318	597	396318	5.70	1.46	5.15	94.26	23.78
351	477	312996	6.12	1.15	5.53	95.41	29.32
382	380	253954	6.49	0.93	5.86	96.34	35.18
414	308	214642	7.07	0.79	6.39	97.13	41.57
447	253	158809	6.62	0.58	5.98	97.71	47.55
479	227	144596	7.50	0.53	6.78	98.24	54.33
512	182	108006	6.86	0.40	6.21	98.64	60.53
545	166	102109	7.86	0.37	7.11	99.01	67.64
578	144	81682	7.54	0.30	6.82	99.31	74.46
611	100	55297	6.06	0.20	5.48	99.52	79.94
644	61	34938	4.50	0.13	4.07	99.65	84.01
677	63	40953	6.16	0.15	5.57	99.80	89.58
710	32	16786	2.92	0.06	2.64	99.86	92.22
743	27	21702	4.34	0.08	3.93	99.94	96.15
776	20	12489	2.86	0.05	2.58	99.98	98.73
809	2	680	0.18	0.00	0.16	99.99	98.89
842	4	2357	0.69	0.01	0.63	99.99	99.52
875	3	1623	0.54	0.01	0.48	100.00	100.00
TOTAL	3.13E+04	2.72E+07	110.61				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 31260/ 40841 = 76.5%

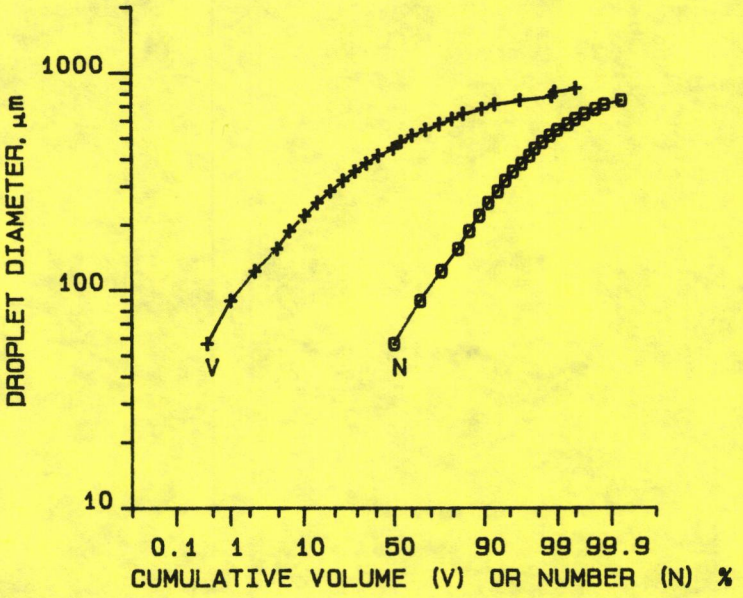
NUMBER MEAN DIA.= D_{10}.... 102.57 µm
VOLUME MEAN DIA.= D_{30}.... 198.03 µm
SAUTER MEAN DIA.= D_{32}.... 352.73 µm

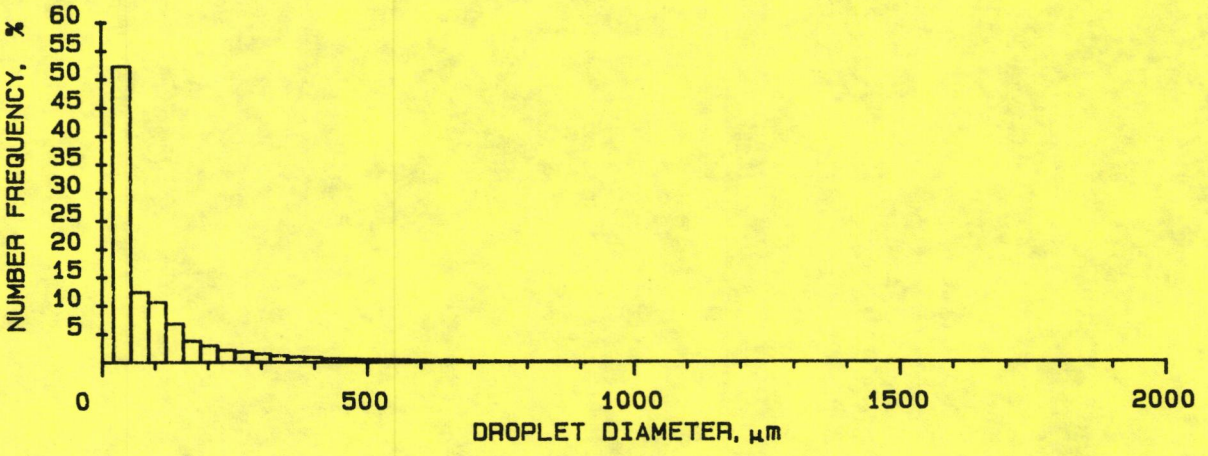
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... <56 µm
$D_{N.9}$... 237.57 µm

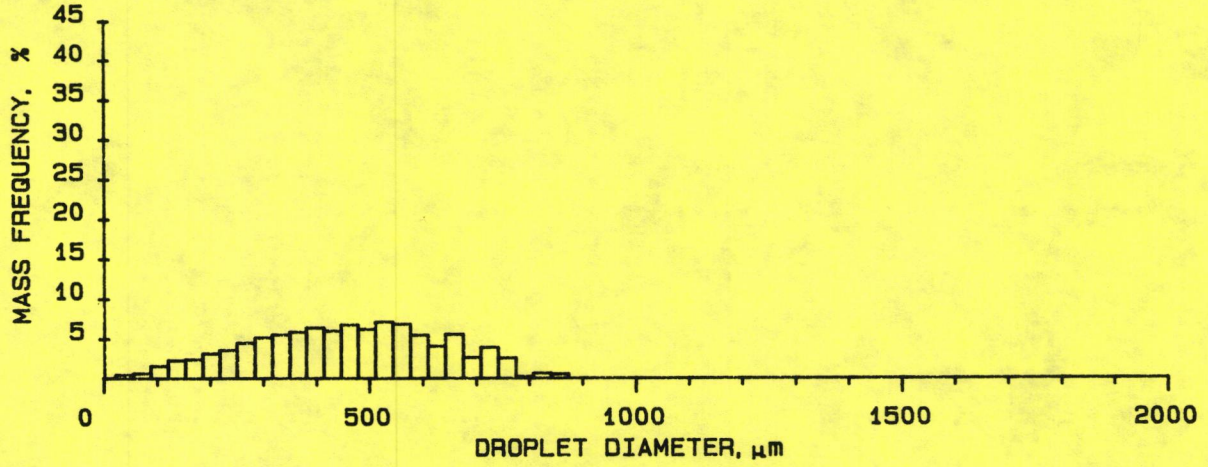
VOLUME MEDIAN DIA.= $D_{V.1}$... 214.68 µm
$D_{V.5}$... 458.73 µm
$D_{V.9}$... 681.76 µm

RELATIVE SPAN= 1.02

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: 10% SIM. AATREX
90% WATER
FILE: C:\PMS\DATA\073186.004







Nozzle	D10 JET	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	2.35 gpm	Distance to Probe	198 cm.
Tank Mix	10% SIM.AATREX 4L	Sample Interval	300 sec.
	90% WATER	Number of Samples	1
		Number of Scans	12
FILE: C:\PMS\DATA\080586.007		Scan Spacing	1.66 cm.
Number of Tests Combined: 2		Scan Length	35 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	4083	3.20E+06	0.11	65.03	0.09	65.03	0.09
89	5309	539263	0.11	10.97	0.09	76.00	0.19
122	4131	358039	0.22	7.28	0.19	83.28	0.38
154	2873	260993	0.36	5.31	0.31	88.59	0.69
187	1288	123745	0.32	2.52	0.28	91.11	0.97
220	693	64468	0.28	1.31	0.25	92.42	1.22
252	441	40304	0.27	0.82	0.24	93.24	1.46
284	335	29477	0.30	0.60	0.26	93.84	1.72
318	293	24290	0.35	0.49	0.31	94.34	2.03
351	283	23328	0.46	0.47	0.40	94.81	2.43
382	209	15434	0.39	0.31	0.35	95.12	2.77
414	217	17446	0.57	0.35	0.50	95.48	3.28
447	176	13331	0.56	0.27	0.49	95.75	3.77
479	167	13248	0.69	0.27	0.60	96.02	4.37
512	158	12358	0.79	0.25	0.69	96.27	5.06
545	188	14990	1.15	0.30	1.01	96.58	6.07
578	150	11659	1.08	0.24	0.95	96.81	7.02
611	124	9839	1.08	0.20	0.95	97.01	7.97
644	129	11962	1.54	0.24	1.35	97.26	9.32
677	101	9634	1.45	0.20	1.27	97.45	10.59
710	101	9651	1.68	0.20	1.48	97.65	12.07
743	89	9439	1.89	0.19	1.66	97.84	13.73
776	75	7943	1.82	0.16	1.59	98.00	15.32
809	79	7978	2.07	0.16	1.82	98.17	17.14
842	60	7112	2.09	0.14	1.83	98.31	18.97
875	58	5896	1.95	0.12	1.71	98.43	20.69
908	55	5282	1.95	0.11	1.72	98.54	22.40
941	50	4208	1.74	0.09	1.52	98.62	23.93
974	45	5268	2.41	0.11	2.12	98.73	26.05
1007	40	5022	2.55	0.10	2.24	98.83	28.28
1040	38	4320	2.42	0.09	2.12	98.92	30.41
1073	31	4085	2.52	0.08	2.21	99.00	32.62
1106	21	3546	2.39	0.07	2.10	99.08	34.72

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	25	3680	2.72	0.07	2.39	99.15	37.11
1172	33	4682	3.77	0.10	3.31	99.25	40.42
1205	18	3611	3.17	0.07	2.78	99.32	43.20
1238	16	2120	2.02	0.04	1.77	99.36	44.97
1271	21	3379	3.49	0.07	3.06	99.43	48.03
1304	14	1770	1.97	0.04	1.73	99.47	49.77
1337	8	847	1.02	0.02	0.89	99.48	50.66
1370	12	2176	2.82	0.04	2.48	99.53	53.14
1403	9	1677	2.34	0.03	2.05	99.56	55.19
1436	13	3059	4.57	0.06	4.01	99.62	59.20
1469	6	1023	1.64	0.02	1.44	99.65	60.64
1502	4	1026	1.76	0.02	1.54	99.67	62.18
1535	7	1357	2.48	0.03	2.18	99.69	64.36
1568	7	2026	3.95	0.04	3.47	99.74	67.84
1601	5	921	1.91	0.02	1.68	99.75	69.52
1634	5	2753	6.09	0.06	5.34	99.81	74.86
1667	3	871	2.05	0.02	1.80	99.83	76.66
1700	1	134	0.33	0.00	0.29	99.83	76.95
1733	2	401	1.06	0.01	0.93	99.84	77.88
1766	5	2433	6.81	0.05	5.98	99.89	83.86
1799	5	2502	7.41	0.05	6.50	99.94	90.36
1832	0	0	0.00	0.00	0.00	99.94	90.36
1865	1	1385	4.57	0.03	4.02	99.97	94.38
1898	1	357	1.24	0.01	1.09	99.97	95.47
1931	0	0	0.00	0.00	0.00	99.97	95.47
1964	0	0	0.00	0.00	0.00	99.97	95.47
1997	1	1271	5.16	0.03	4.53	100.00	100.00
TOTAL	2.23E+04	4.92E+06	113.88				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 22312/ 28683 = 77.8%

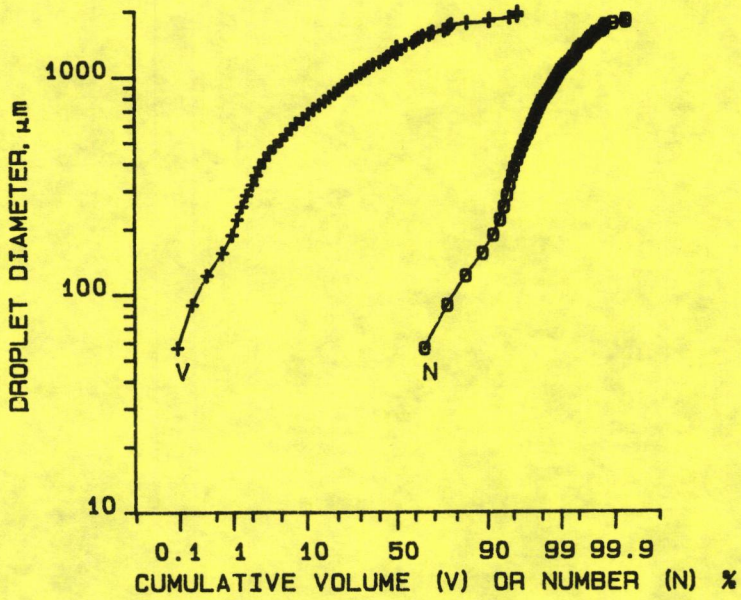
NUMBER MEAN DIA.= D_{10}.... 102.49 µm
VOLUME MEAN DIA.= D_{30}.... 353.82 µm
SAUTER MEAN DIA.= D_{32}.... 993.23 µm

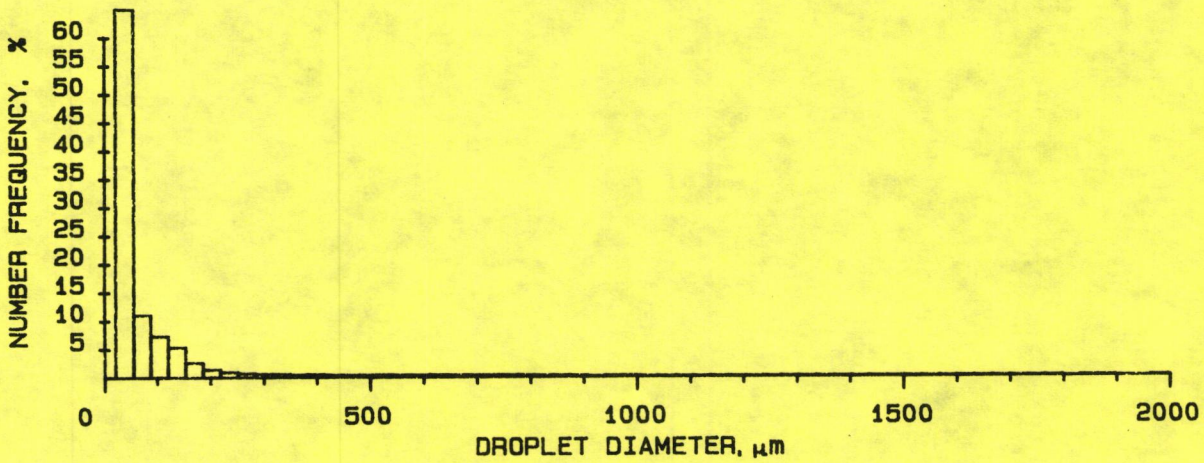
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... <56 µm
$D_{N.9}$... 172.74 µm

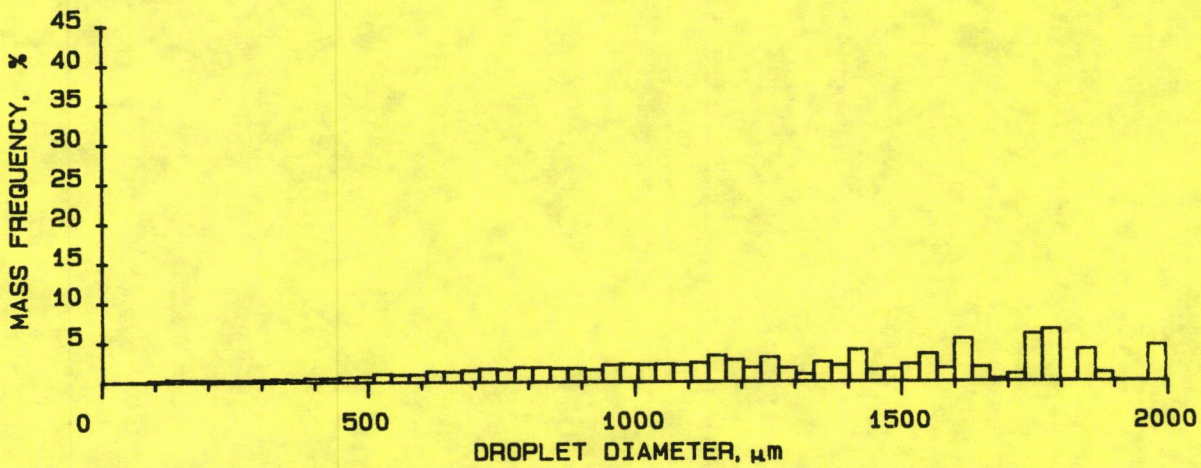
VOLUME MEDIAN DIA.= $D_{V.1}$... 661.16 µm
$D_{V.5}$...1312.10 µm
$D_{V.9}$...1796.66 µm

RELATIVE SPAN= 0.87

Nozzle Type . . . D10 JET
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 2.35
Tank Mix: 10% SIM.AATREX 4L
90% WATER
FILE: C:\PMS\DATA\080586.007







Nozzle	RD10-(D10-45)	Distance to Probe	46 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	240
Airspeed	50 mph	Number of Scans	6
Flow Rate	.94 gpm	Scan Spacing	6 cm.
Tank Mix	WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\06108609.002

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	1.08E+07	0.36	12.03	0.10	26.46	0.22
6.9	3.27E+06	0.38	3.81	0.11	34.45	0.44
11.0	3.61E+06	1.57	2.15	0.23	43.28	1.37
13.2	1.89E+06	1.80	2.10	0.49	47.90	2.44
15.4	3.22E+06	5.01	3.57	1.35	55.76	5.42
20.5	4.74E+06	15.20	2.27	1.77	67.34	14.46
23.6	2.76E+06	15.73	2.18	3.02	74.09	23.82
25.7	2.61E+06	20.52	3.03	5.81	80.46	36.02
27.6	2.47E+06	24.56	3.18	7.69	86.50	50.64
29.5	2.09E+06	25.47	2.68	7.97	91.60	65.79
31.5	1.83E+06	27.25	2.24	8.10	96.07	82.00
34.4	1.61E+06	30.26	1.36	6.21	100.00	100.00
TOTAL	4.09E+07	168.10				

NUMBER MEAN DIA.= D_{10}... 14.98 µm
VOLUME MEAN DIA.= D_{30}... 19.88 µm
SAUTER MEAN DIA.= D_{32}... 24.70 µm

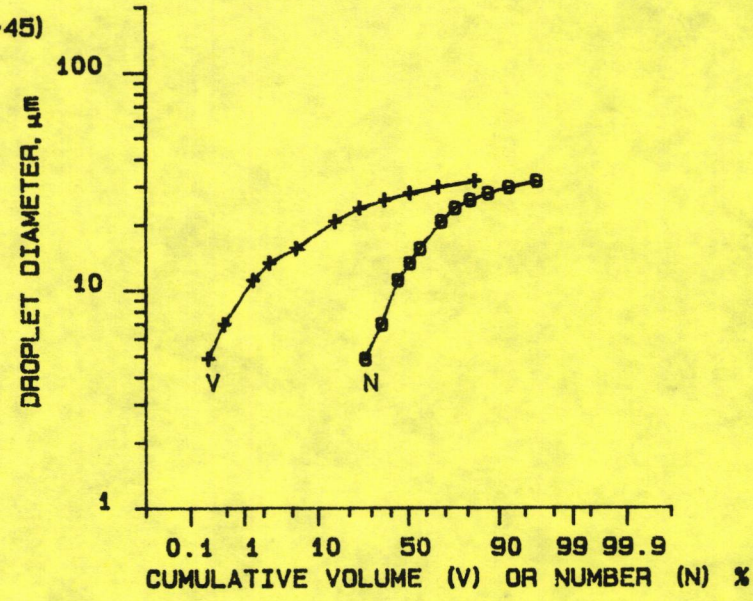
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 13.79 µm
$D_{N.9}$... 28.90 µm

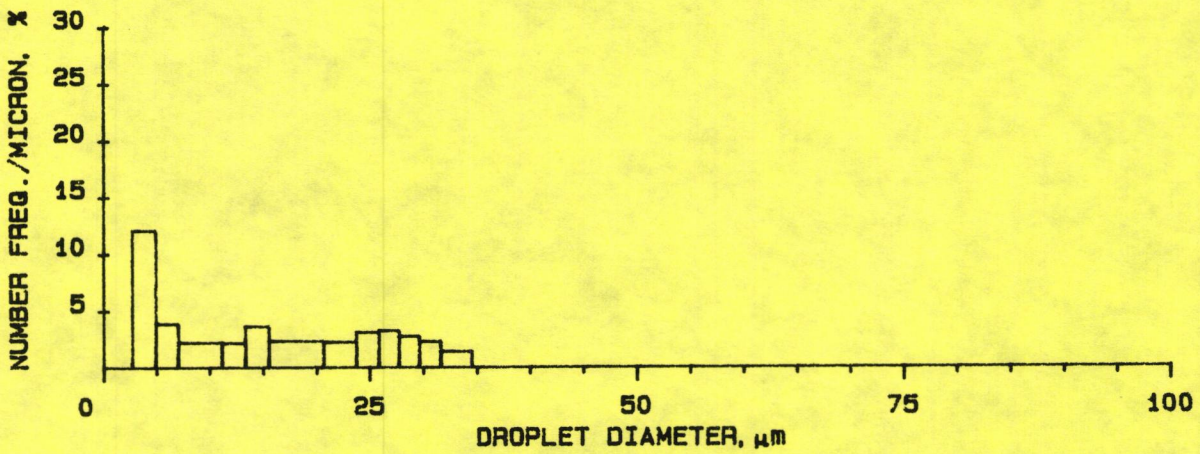
VOLUME MEDIAN DIA.= $D_{V.1}$... 17.98 µm
$D_{V.5}$... 27.52 µm
$D_{V.9}$... 32.79 µm

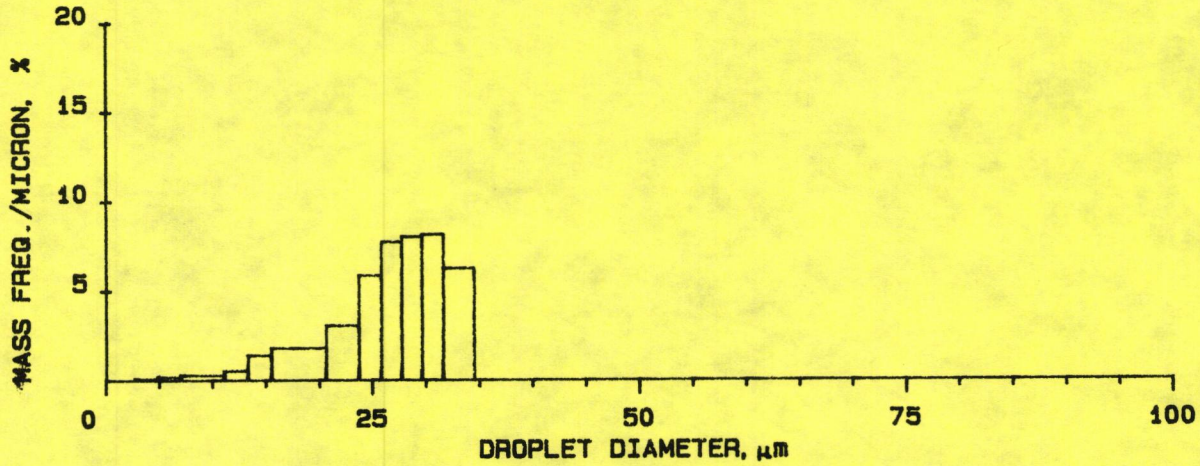
RELATIVE SPAN= 0.54

Nozzle Type . . . RD10-(D10-45)
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: WATER

FILE: C:\PMS\DATA\06108609.002







Nozzle	D10-45	Distance to Probe	31 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	8
Flow Rate	.94 gpm	Scan Spacing	6 cm.
Tank Mix	WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\06108609.001

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	2.14E+07	0.72	7.27	0.04	16.00	0.09
6.9	7.74E+06	0.89	2.75	0.05	21.78	0.21
11.0	9.48E+06	4.11	1.73	0.13	28.86	0.74
13.2	4.98E+06	4.73	1.69	0.28	32.59	1.35
15.4	9.17E+06	14.28	3.12	0.84	39.44	3.20
20.5	1.71E+07	54.88	2.51	1.39	52.22	10.32
23.6	1.23E+07	69.98	2.96	2.92	61.41	19.38
25.7	1.27E+07	99.70	4.50	6.15	70.87	32.30
27.6	1.23E+07	122.55	4.85	8.36	80.08	48.18
29.5	1.01E+07	123.94	3.99	8.45	87.66	64.24
31.5	8.85E+06	131.77	3.31	8.54	94.27	81.31
34.4	7.67E+06	144.25	1.97	6.44	100.00	100.00
TOTAL	1.34E+08	771.81				

NUMBER MEAN DIA.= D_{10}.... 18.34 µm
VOLUME MEAN DIA.= D_{30}.... 22.26 µm
SAUTER MEAN DIA.= D_{32}.... 25.77 µm

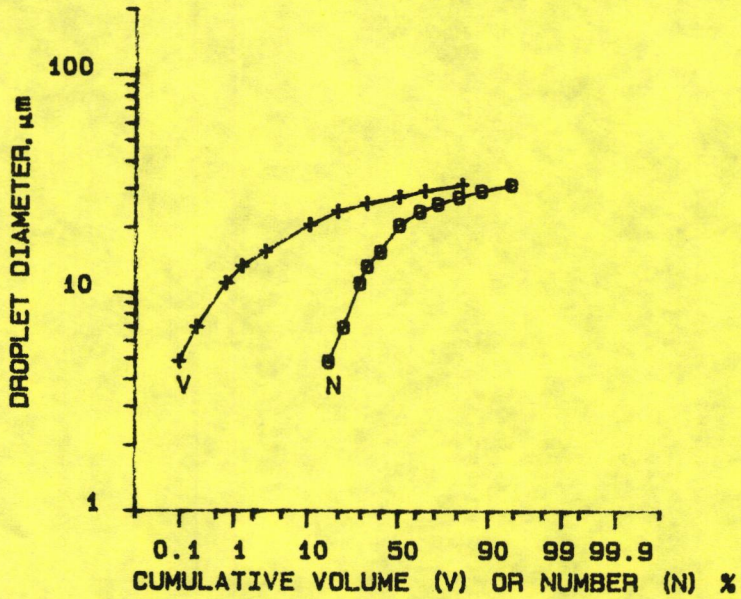
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 19.61 µm
$D_{N.9}$... 30.21 µm

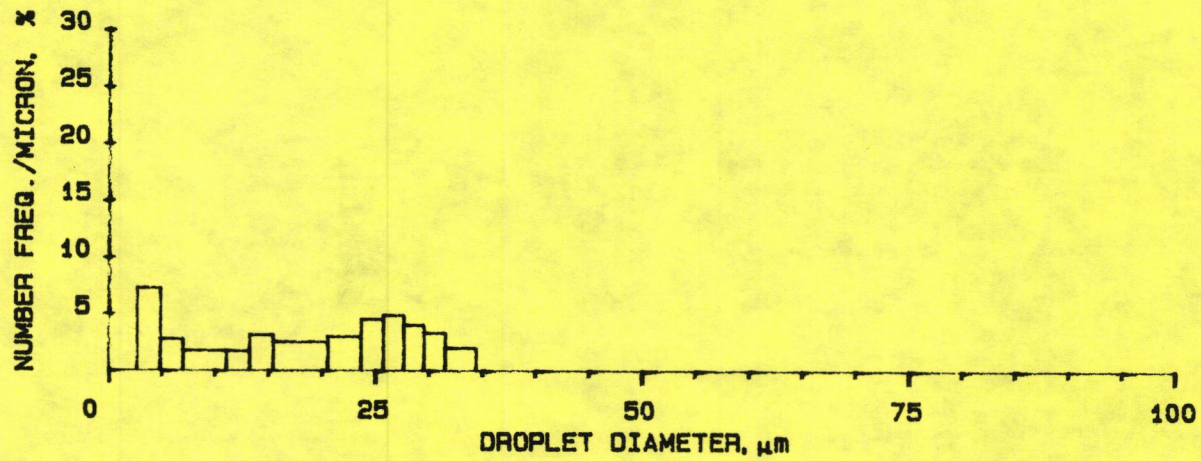
VOLUME MEDIAN DIA.= $D_{V.1}$... 20.27 µm
$D_{V.5}$... 27.82 µm
$D_{V.9}$... 32.85 µm

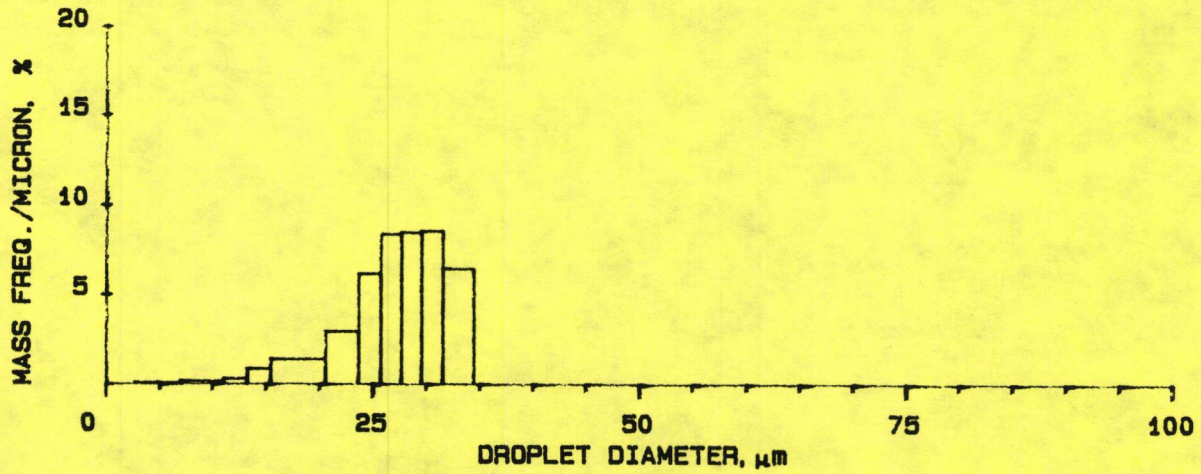
RELATIVE SPAN= 0.45

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . .94 gpm
Tank Mix: WATER

FILE: C:\PMS\DATA\06108609.001







Nozzle	D10	Distance to Probe	170 cm.
Angle to Airstream	0 Degrees	Sample Interval	1 sec.
Spray Pressure	30 psi	Number of Samples	300
Airspeed	50 mph	Number of Scans	8
Flow Rate	2.35 gpm	Scan Spacing	6 cm.
Tank Mix	WATER	Scan Length	40 cm.

FILE: C:\PMS\DATA\06108615.003

Number of Tests Combined: 2

UPPER LIMIT	N/SEC	mg/SEC	%N/um	%VOL/um	ACCUMULATED % N	ACCUMULATED % VOL.
2.6						
4.8	3.78E+07	1.27	15.49	0.17	34.09	0.38
6.9	7.59E+06	0.87	3.26	0.12	40.94	0.64
11.0	7.29E+06	3.16	1.60	0.23	47.52	1.59
13.2	4.27E+06	4.06	1.75	0.55	51.37	2.81
15.4	1.07E+07	16.66	4.39	2.27	61.03	7.80
20.5	1.75E+07	56.20	3.10	3.30	76.83	24.65
23.6	7.50E+06	42.65	2.18	4.13	83.59	37.44
25.7	5.74E+06	45.20	2.47	6.45	88.77	50.99
27.6	4.38E+06	43.54	2.08	6.87	92.73	64.05
29.5	3.25E+06	39.67	1.54	6.26	95.66	75.94
31.5	2.64E+06	39.24	1.19	5.88	98.03	87.71
34.4	2.18E+06	41.00	0.68	4.24	100.00	100.00
TOTAL	1.11E+08	333.51				

NUMBER MEAN DIA.= D_{10}.... 13.19 µm
VOLUME MEAN DIA.= D_{30}.... 17.92 µm
SAUTER MEAN DIA.= D_{32}.... 22.75 µm

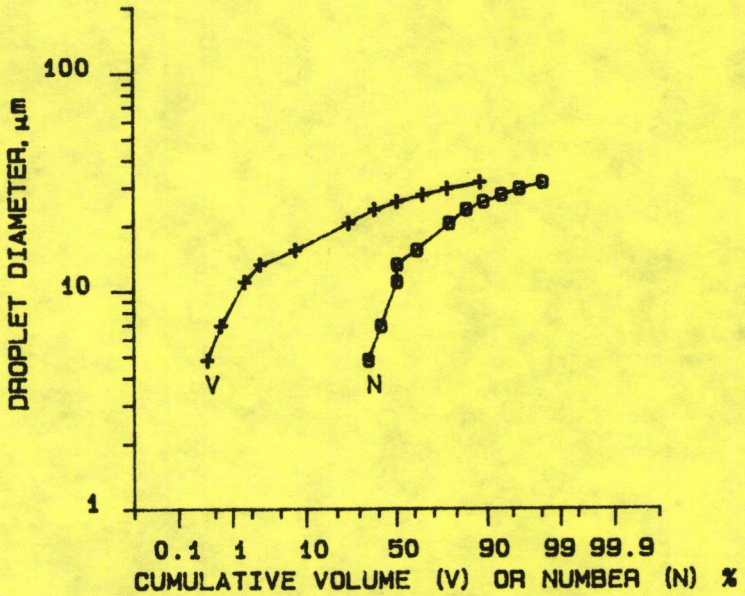
NUMBER MEDIAN DIA.= $D_{N.1}$... < 4.8 µm
$D_{N.5}$... 12.42 µm
$D_{N.9}$... 26.29 µm

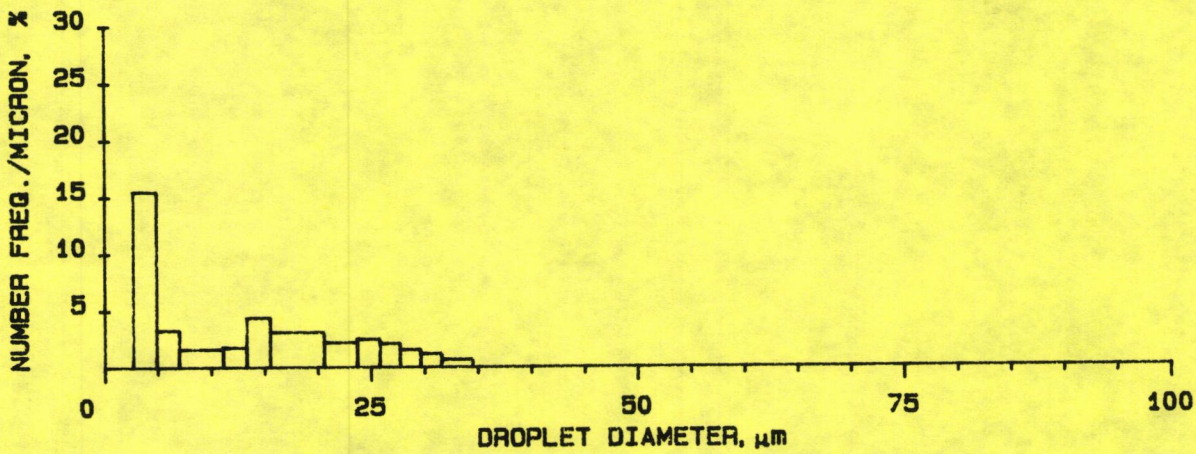
VOLUME MEDIAN DIA.= $D_{V.1}$... 16.07 µm
$D_{V.5}$... 25.55 µm
$D_{V.9}$... 32.04 µm

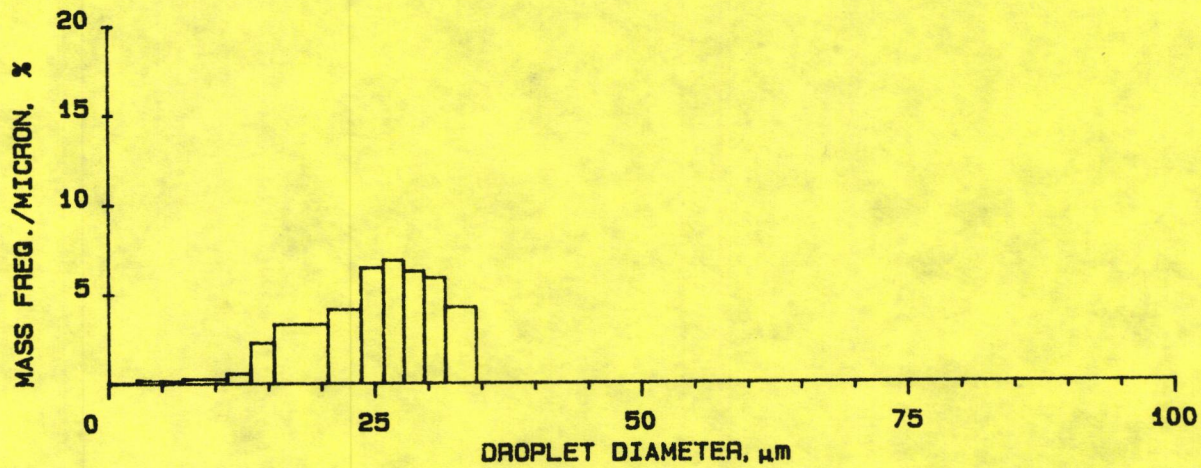
RELATIVE SPAN= 0.63

Nozzle Type . . . D10
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate . . . . 2.35 gpm
Tank Mix: WATER

FILE: C:\PMS\DATA\06108615.003







Nozzle	RD10(D10-45)	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	31 cm.
Tank Mix	WATER	Sample Interval	240 sec.
		Number of Samples	1
		Number of Scans	6
FILE: C:\PMS\DATA\05308611.002		Scan Spacing	6 cm.
Number of Tests Combined: 3		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	951	649763	0.02	34.57	0.03	34.57	0.03
89	2112	193990	0.04	10.32	0.05	44.89	0.07
122	2395	182127	0.11	9.69	0.14	54.58	0.21
154	2272	176258	0.24	9.38	0.30	63.96	0.51
187	1467	118311	0.31	6.29	0.38	70.25	0.88
220	1073	88481	0.39	4.71	0.48	74.96	1.36
252	807	63804	0.43	3.39	0.53	78.35	1.89
284	607	47131	0.47	2.51	0.58	80.86	2.47
318	599	45882	0.66	2.44	0.81	83.30	3.28
351	461	34997	0.68	1.86	0.84	85.16	4.12
382	405	31016	0.79	1.65	0.97	86.81	5.10
414	367	27796	0.92	1.48	1.12	88.29	6.22
447	327	24471	1.02	1.30	1.25	89.59	7.47
479	263	20108	1.04	1.07	1.28	90.66	8.75
512	247	19239	1.22	1.02	1.50	91.69	10.25
545	226	16976	1.31	0.90	1.61	92.59	11.86
578	169	12101	1.12	0.64	1.37	93.23	13.23
611	159	12086	1.32	0.64	1.63	93.88	14.86
644	126	9407	1.21	0.50	1.49	94.38	16.35
677	128	10242	1.54	0.54	1.89	94.92	18.24
710	82	6380	1.11	0.34	1.36	95.26	19.60
743	84	6612	1.32	0.35	1.63	95.61	21.23
776	70	5608	1.28	0.30	1.58	95.91	22.81
809	77	6303	1.64	0.34	2.01	96.25	24.82
842	63	4988	1.46	0.27	1.80	96.51	26.62
875	59	4967	1.64	0.26	2.02	96.78	28.63
908	51	4330	1.60	0.23	1.97	97.01	30.60
941	34	2956	1.22	0.16	1.50	97.17	32.10
974	45	4453	2.04	0.24	2.51	97.40	34.60
1007	49	4240	2.15	0.23	2.64	97.63	37.25
1040	37	3565	2.00	0.19	2.45	97.82	39.70
1073	34	3210	1.98	0.17	2.43	97.99	42.13
1106	46	4638	3.13	0.25	3.85	98.24	45.97

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	37	3665	2.71	0.19	3.33	98.43	49.30
1172	39	4162	3.35	0.22	4.12	98.65	53.42
1205	27	2952	2.59	0.16	3.18	98.81	56.60
1238	27	3033	2.89	0.16	3.55	98.97	60.15
1271	23	2769	2.86	0.15	3.51	99.12	63.65
1304	18	2267	2.53	0.12	3.11	99.24	66.76
1337	19	2435	2.93	0.13	3.60	99.37	70.36
1370	13	1534	1.99	0.08	2.44	99.45	72.80
1403	10	1373	1.91	0.07	2.35	99.52	75.14
1436	13	1865	2.79	0.10	3.42	99.62	78.57
1469	4	502	0.80	0.03	0.99	99.65	79.56
1502	5	859	1.47	0.05	1.81	99.69	81.36
1535	7	1124	2.06	0.06	2.53	99.75	83.89
1568	3	538	1.05	0.03	1.29	99.78	85.18
1601	1	139	0.29	0.01	0.36	99.79	85.53
1634	1	191	0.42	0.01	0.52	99.80	86.05
1667	2	473	1.11	0.03	1.37	99.82	87.42
1700	1	302	0.75	0.02	0.92	99.84	88.34
1733	1	374	0.99	0.02	1.22	99.86	89.56
1766	0	0	0.00	0.00	0.00	99.86	89.56
1799	1	367	1.09	0.02	1.33	99.88	90.89
1832	1	586	1.83	0.03	2.25	99.91	93.14
1865	3	1090	3.60	0.06	4.42	99.97	97.56
1898	1	571	1.99	0.03	2.44	100.00	100.00
TOTAL	1.61E+04	1.88E+06	81.42				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 16149/ 18096 = 89.2%

NUMBER MEAN DIA.= D_{10}.... 191.60 µm
VOLUME MEAN DIA.= D_{30}.... 435.89 µm
SAUTER MEAN DIA.= D_{32}.... 862.33 µm

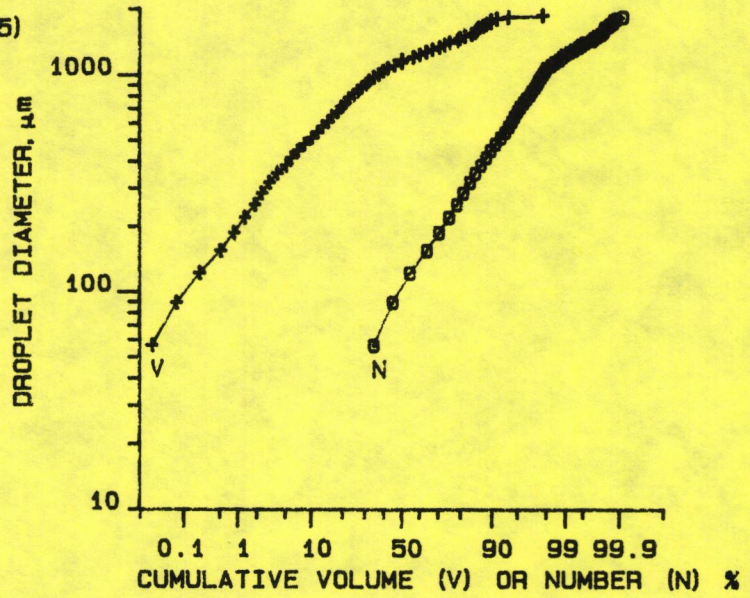
NUMBER MEDIAN DIA.= $D_{N.1}$... <56 µm
$D_{N.5}$... 106.34 µm
$D_{N.9}$... 459.31 µm

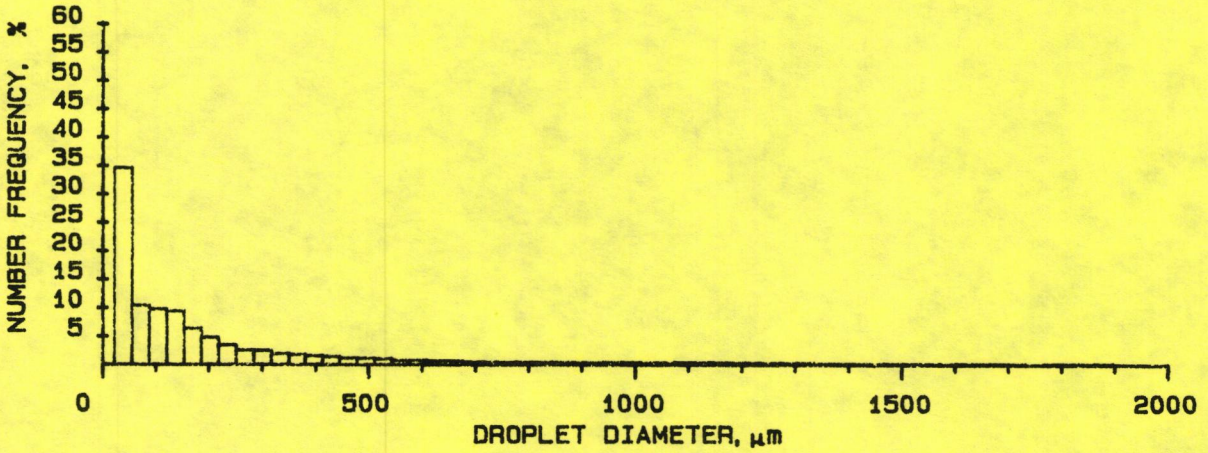
VOLUME MEDIAN DIA.= $D_{V.1}$... 506.70 µm
$D_{V.5}$...1144.11 µm
$D_{V.9}$...1776.46 µm

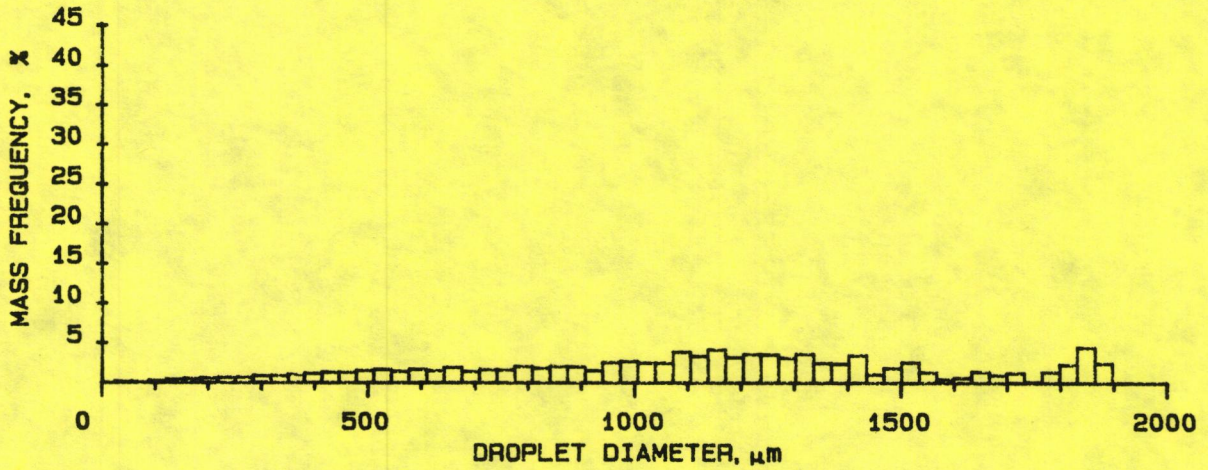
RELATIVE SPAN= 1.11

Nozzle Type . . . RD10 (D10-45)
Angle to Airstream 0 °
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: WATER

FILE: C: \PMS\DATA\05308611.002







Nozzle	D10-45	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	.94 gpm	Distance to Probe	31 cm.
Tank Mix	WATER	Sample Interval	300 sec.
		Number of Samples	1
		Number of Scans	8
FILE: C:\PMS\DATA\05308610.001		Scan Spacing	6 cm.
Number of Tests Combined: 3		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	4921	1.02E+07	0.34	49.24	0.38	49.24	0.38
89	8245	2.57E+06	0.51	12.40	0.57	61.65	0.95
122	8271	2.17E+06	1.31	10.47	1.47	72.11	2.42
154	6747	1.68E+06	2.30	8.12	2.57	80.24	4.99
187	3681	894081	2.31	4.32	2.59	84.56	7.58
220	2422	649980	2.84	3.14	3.18	87.70	10.77
252	1604	479021	3.26	2.32	3.65	90.01	14.42
284	1160	395110	3.97	1.91	4.44	91.92	18.87
318	876	330629	4.75	1.60	5.32	93.52	24.19
351	738	276711	5.41	1.34	6.06	94.86	30.25
382	618	229273	5.85	1.11	6.56	95.97	36.80
414	566	216404	7.12	1.05	7.98	97.01	44.78
447	435	153492	6.40	0.74	7.16	97.76	51.94
479	358	124532	6.46	0.60	7.23	98.36	59.17
512	256	83790	5.32	0.40	5.96	98.76	65.13
545	207	75370	5.80	0.36	6.50	99.13	71.63
578	134	48052	4.44	0.23	4.97	99.36	76.59
611	123	37660	4.13	0.18	4.62	99.54	81.22
644	91	27740	3.58	0.13	4.00	99.68	85.22
677	71	25616	3.85	0.12	4.31	99.80	89.53
710	38	13864	2.41	0.07	2.70	99.87	92.23
743	31	10399	2.08	0.05	2.33	99.92	94.57
776	14	4433	1.01	0.02	1.13	99.94	95.70
809	20	6969	1.81	0.03	2.03	99.97	97.73
842	5	1125	0.33	0.01	0.37	99.98	98.10
875	9	3591	1.19	0.02	1.33	99.99	99.43
908	2	744	0.28	0.00	0.31	100.00	99.73
941	1	133	0.05	0.00	0.06	100.00	99.80
974	1	228	0.10	0.00	0.12	100.00	99.91
1007	0	0	0.00	0.00	0.00	100.00	99.91
1040	0	0	0.00	0.00	0.00	100.00	99.91
1073	1	128	0.08	0.00	0.09	100.00	100.00
TOTAL	4.16E+04	2.07E+07	89.31				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 41646/ 52121 = 79.9%

NUMBER MEAN DIA.=	D_{10}	108.03 µm
VOLUME MEAN DIA.=	D_{30}	202.09 µm
SAUTER MEAN DIA.=	D_{32}	348.80 µm

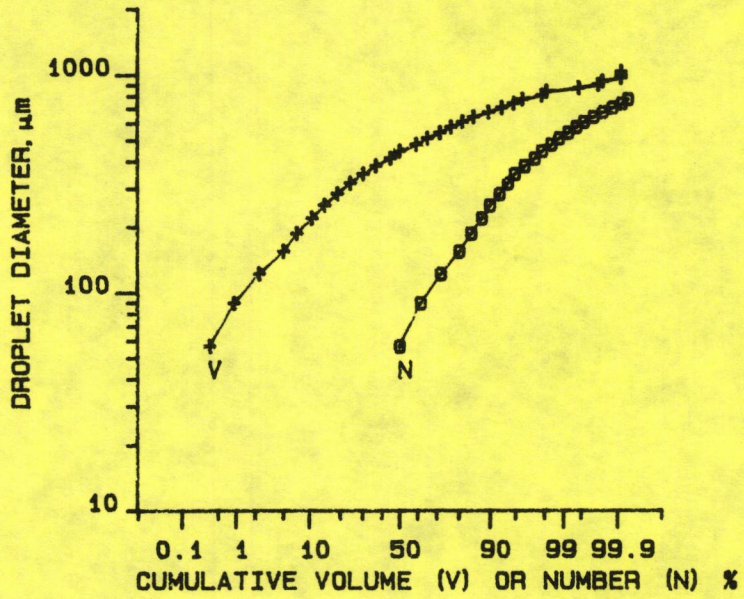
NUMBER MEDIAN DIA.=	$D_{N.1}$	<56 µm
	$D_{N.5}$	58.28 µm
	$D_{N.9}$	252.29 µm

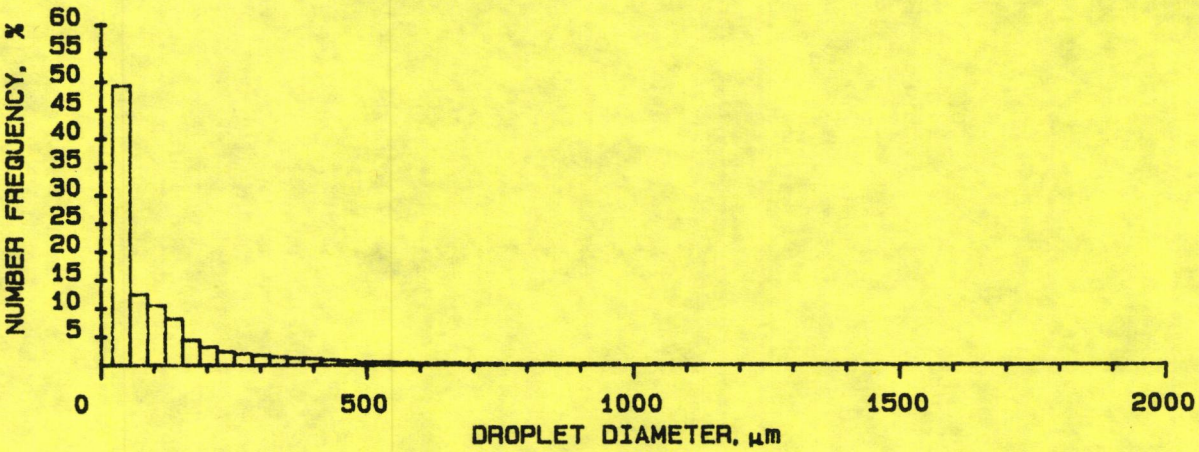
VOLUME MEDIAN DIA.=	$D_{V.1}$	211.94 µm
	$D_{V.5}$	438.36 µm
	$D_{V.9}$	682.20 µm

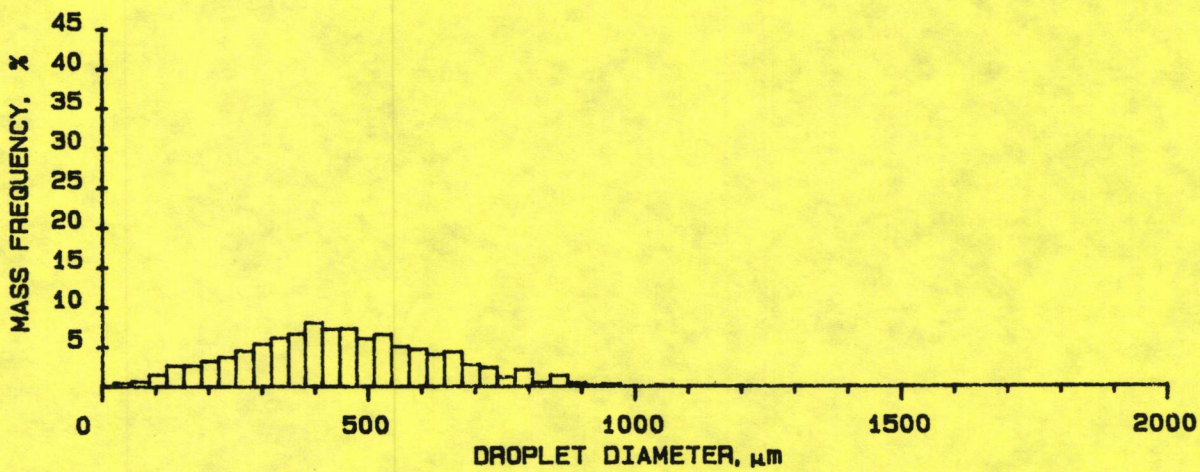
RELATIVE SPAN= 1.07

Nozzle Type . . . D10-45
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 94
Tank Mix: WATER

FILE: C: \PMS\DATA\05308610.001







Nozzle	D10	Slice Rate	1.5 MHz
Angle to Airstream	0 degrees	AVG	100
Spray Pressure	30 psi	DFM	1 cm.
Airspeed	50 mph	BAR	1.5
Flow Rate	2.35 gpm	Distance to Probe	170 cm.
Tank Mix	WATER	Sample Interval	300 sec.
		Number of Samples	1
		Number of Scans	8
FILE: C:\PMS\DATA\06108616.003		Scan Spacing	6 cm.
Number of Tests Combined: 2		Scan Length	40 cm.

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
56	1430	2.34E+06	0.08	60.82	0.08	60.82	0.08
89	2214	458660	0.09	11.93	0.10	72.75	0.18
122	1757	306350	0.19	7.97	0.20	80.72	0.38
154	1210	210850	0.29	5.48	0.31	86.21	0.68
187	639	112181	0.29	2.92	0.31	89.13	0.99
220	306	49469	0.22	1.29	0.23	90.41	1.22
252	203	35590	0.24	0.93	0.26	91.34	1.48
284	169	26270	0.26	0.68	0.28	92.02	1.76
318	151	22395	0.32	0.58	0.34	92.61	2.10
351	111	17874	0.35	0.46	0.37	93.07	2.47
382	112	16105	0.41	0.42	0.44	93.49	2.91
414	126	18246	0.60	0.47	0.64	93.96	3.55
447	117	14462	0.60	0.38	0.64	94.34	4.19
479	84	11647	0.60	0.30	0.64	94.64	4.83
512	99	14557	0.93	0.38	0.98	95.02	5.81
545	77	12298	0.95	0.32	1.01	95.34	6.82
578	81	13465	1.24	0.35	1.32	95.69	8.14
611	80	11654	1.28	0.30	1.36	95.99	9.49
644	72	13354	1.72	0.35	1.83	96.34	11.32
677	73	13635	2.05	0.35	2.18	96.70	13.50
710	67	11373	1.98	0.30	2.10	96.99	15.60
743	55	9117	1.82	0.24	1.94	97.23	17.54
776	39	7654	1.75	0.20	1.86	97.43	19.40
809	44	7314	1.90	0.19	2.02	97.62	21.42
842	47	7255	2.13	0.19	2.26	97.81	23.68
875	39	6025	1.99	0.16	2.11	97.96	25.79
908	27	5205	1.93	0.14	2.04	98.10	27.84
941	33	7322	3.02	0.19	3.21	98.29	31.05
974	29	5726	2.62	0.15	2.79	98.44	33.83
1007	25	6580	3.34	0.17	3.55	98.61	37.38
1040	25	4342	2.43	0.11	2.58	98.72	39.96
1073	15	2888	1.78	0.08	1.89	98.80	41.85
1106	21	4846	3.27	0.13	3.48	98.92	45.33

UPPER LIMIT	N(RAW)	N/SEC	Gm/SEC	% N	% VOL.	ACCUMULATED % N	ACCUMULATED % VOL.
1139	17	4609	3.41	0.12	3.62	99.04	48.94
1172	11	3040	2.45	0.08	2.60	99.12	51.54
1205	12	4191	3.67	0.11	3.90	99.23	55.45
1238	7	3367	3.21	0.09	3.40	99.32	58.85
1271	9	4040	4.17	0.11	4.43	99.43	63.28
1304	13	4046	4.51	0.11	4.79	99.53	68.07
1337	3	603	0.73	0.02	0.77	99.55	68.84
1370	10	3393	4.40	0.09	4.67	99.63	73.51
1403	3	593	0.83	0.02	0.88	99.65	74.38
1436	6	4107	6.14	0.11	6.52	99.76	80.90
1469	6	3480	5.57	0.09	5.92	99.85	86.82
1502	1	299	0.51	0.01	0.54	99.86	87.36
1535	1	1764	3.23	0.05	3.43	99.90	90.79
1568	3	657	1.28	0.02	1.36	99.92	92.15
1601	2	705	1.47	0.02	1.56	99.94	93.71
1634	3	1231	2.72	0.03	2.89	99.97	96.60
1667	0	0	0.00	0.00	0.00	99.97	96.60
1700	0	0	0.00	0.00	0.00	99.97	96.60
1733	2	1211	3.20	0.03	3.40	100.00	100.00
TOTAL	9.69E+03	3.84E+06	94.16				

TOTAL ACCEPTED RAW PARTICLES / TOTAL IMAGES = 9686/ 11814 = 82.0%

NUMBER MEAN DIA.= D_{10} .... 115.23 µm
VOLUME MEAN DIA.= D_{30} .... 360.45 µm
SAUTER MEAN DIA.= D_{32} .... 898.50 µm

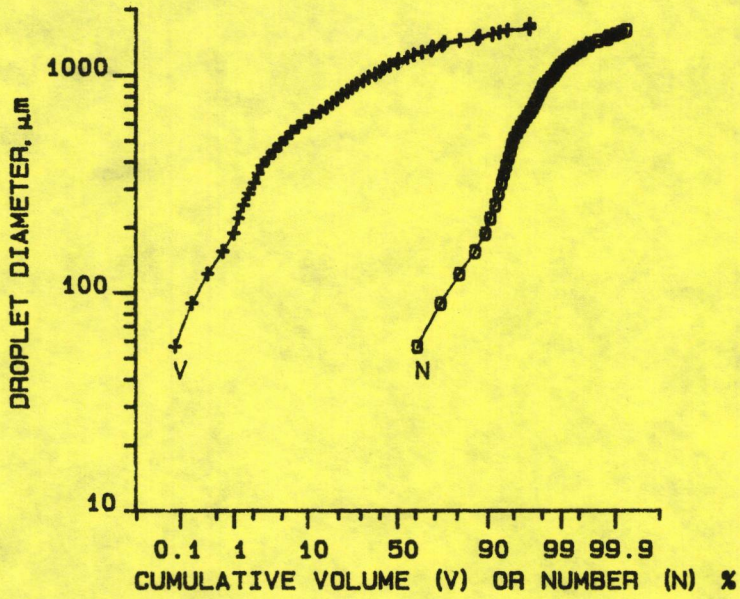
NUMBER MEDIAN DIA.= $D_{N.1}$ ... <56 µm
$D_{N.5}$ ... <56 µm
$D_{N.9}$ ... 209.30 µm

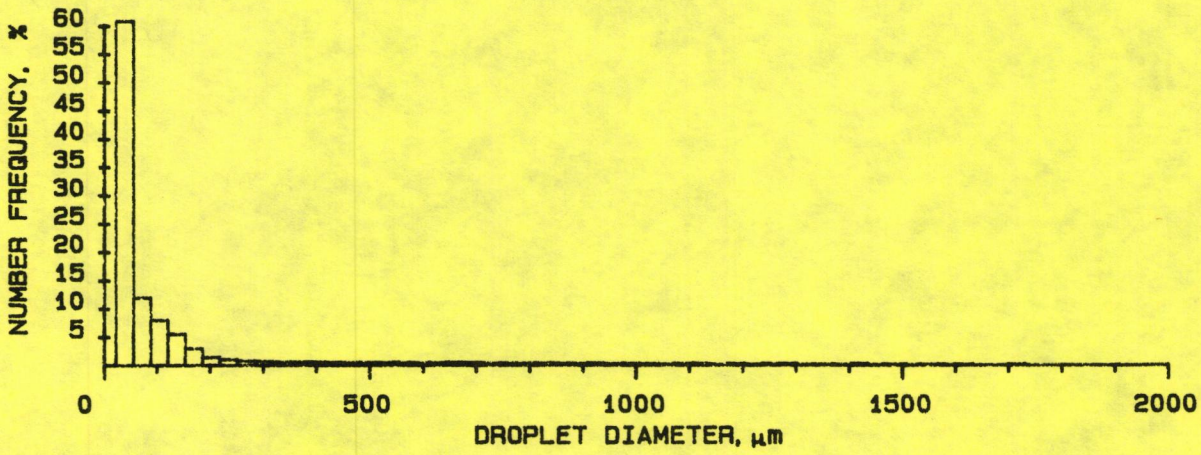
VOLUME MEDIAN DIA.= $D_{V.1}$ ... 619.65 µm
$D_{V.5}$ ...1151.90 µm
$D_{V.9}$ ...1526.89 µm

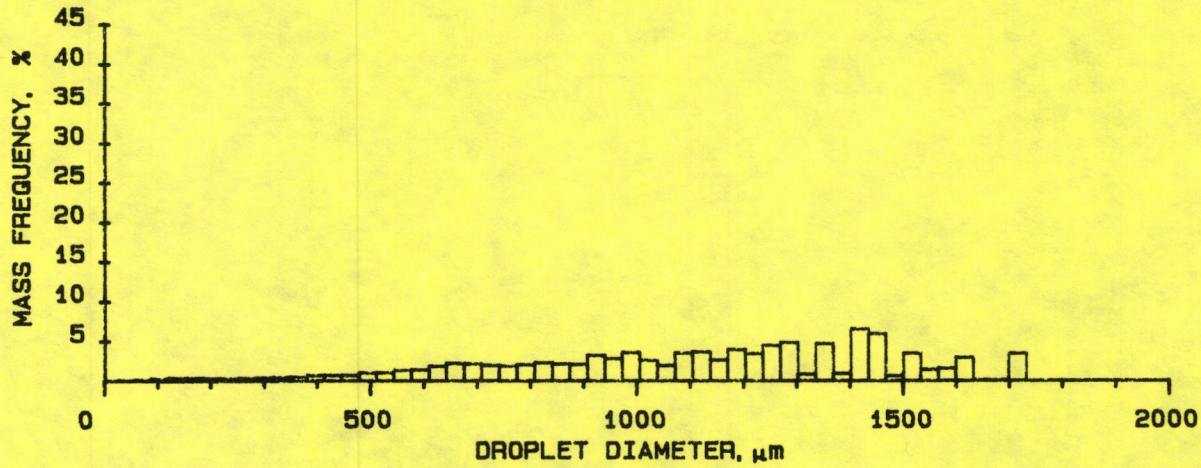
RELATIVE SPAN= 0.79

Nozzle Type . . . D10
Angle to Airstream 0°
Spray Pressure . . 30 psi
Airspeed . . . . . 50 mph
Flow Rate 2.35
Tank Mix: WATER

FILE: C: \PMS\DATA\06108616.003







GPO 788-272/79195